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An analysis of the relationship of military affiliation to demographics, new sailor survey responses, and boot camp success

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THESIS

AN ANALYSIS OF THE RELATIONSHIP OF MILITARY AFFILIATION TO DEMOGRAPHICS, NEW SAILOR SURVEY RESPONSES, AND BOOT CAMP SUCCESS

by

Eric L. Pond

June 2008

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This study examines the relationship of military affiliation to demographics, New Sailor Survey responses administered during fiscal year 2007, and graduation from boot camp. A recruit was categorized as having military affiliation if parents or siblings of the recruit had served or were serving in the military. Recruits' military affiliation showed no significant relationship with AFQT scores, age, bonus amounts, college level, graduation rate from boot camp, number of dependents, boot camp pay grade, race, single status, or the quarter in which the recruit went to boot camp. There was a relationship between military affiliation and a recruit's being female, Hispanic, or not a U.S. citizen. In general, military affiliation did not have an unexplainable significant effect on responses to the New Sailor Survey. The survey responses as a whole suggest that military affiliation does have an effect on how recruits respond; however, further data collection and analysis is necessary beyond the 2,101 data points in this study. The logistic model showed that bonuses above $15,000 and being male were positive predictors of graduation from boot camp. Furthermore, the more a recruit felt prepared by his or her recruiter, the more likely he or she would graduate from boot camp.

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LIST OF ACRONYMS AND ABBREVIATIONS

AFQT	Armed Forces Qualification Test
AOSD	Assistant Office of the Secretary of Defense
ASVAB	Armed Services Vocational Aptitude Battery
CNA	Center for Naval Analysis
CNRC	Commander, Navy Recruiting Command
DEP	Delayed Entry Program
DMDC	Defense Manpower Data Center
DoD	Department of Defense
GED	General Education Development (Certificate)
MEPS	Military Entrance Processing Station
NPS	Naval Postgraduate School
NPRST	Navy Personnel Research Studies and Technology
NRD	Navy Recruiting District
NSS	New Sailor Survey
PQS	Personnel Qualification Standards
PRIDE	Personnel Recruiting for Immediate and Delayed Enlistments
RQAT	Recruit Quality Assurance Team
RTC	Recruit Training Command
SSN	Social Security Number
UIC	Unit Identification Code

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EXECUTIVE SUMMARY

This study analyzes the New Sailor Survey, which was administered to new recruits prior to entering boot camp, for fiscal year 2007. The object of this study was to investigate whether or not recruits with military affiliation responded differently than their non-military affiliated counterparts. Recruits were categorized as having military affiliation if either their parents or siblings were serving or had served in the military.

In order to support analysis, Navy Recruiting Command provided New Sailor Survey results as well as demographic data and other descriptive data. This latter was obtained from the Personnel Recruiting for Immediate and Delayed Enlistments (PRIDE) database. The Navy Retention Monitoring System, which is maintained by the Center for Career Development, Pers-00R, provided boot camp attrition data. Finally, Defense Manpower Data Center (DMDC) database was used to cross-reference demographic, descriptive and attrition data. The data was analyzed in two parts. First, analysis, to see if military affiliation showed statistical significant associations with individual survey responses and with survey responses as a whole, was performed. Second, graduation rates for military affiliation versus no military affiliation, for various demographic and descriptive variables, were utilized to create a logistic model to predict success of graduating from boot camp.

Recruits' military affiliation showed no significant relationship with respect to Armed Forces Qualification Test (AFQT) scores, age, bonus amounts, college level, number of dependents, pay grade at boot camp, race, single status, or the quarter of the year in which boot camp was attended. There was a higher percentage of females with military affiliation than females with no military affiliation. Non-U.S. citizens and Hispanics had a significantly higher percentage of no military affiliation than U.S. citizens. The southern region had significantly higher percentage of recruits with military affiliation, whereas the central, northern, and western regions had significantly higher percentages of recruits

with no military affiliation. Finally, boot camp graduation rates were not significantly different between recruits with and without military affiliation.

Fourteen of the 54 individual questions analyzed in the New Sailor Survey showed that military affiliation was associated with survey responses. The obvious factors – desire to be in the Navy, military tradition in the family, and parents' encouragement to join – showed the expected association. Benefits, security, and training were stronger influences to join for recruits with military affiliation. Also, desire to meet and frequency of meetings with a recruiter, while in the Delayed Entry Program (DEP), tended to be stronger and more frequent for recruits with military affiliation. Military affiliation appeared to play a role in which jobs they were assigned at classification and how it was explained to them. Military-affiliated recruits not only felt more comfortable asking their recruiters questions, but were more willing to recommend the Navy. Further, if military affiliation was part of the family, parents were more likely to meet with their son or daughter's recruiter one or more times.

In the final logistic model, interactions were included to better predict the success of a recruit graduating boot camp. Unfortunately, models with interactions are less easily interpreted. Including three-way interactions led to over-fitting the model. Therefore, the final model included two-way interactions, but three-way interactions were omitted.

Recruits who received a bonus between $15,000 and $40,000 had the highest positive prediction of success for graduating from boot camp. Bonus amounts between $3,000 and $12,000 were only slightly less positive in predicting success than not having any bonus at all. Males yielded higher success for graduating boot camp than females. Surprisingly, in the final model, a recruit who was very dissatisfied with the amount of time spent with the classifier was more likely to succeed than one who was satisfied or very satisfied. In general, recruits who were more positive about the boot camp preparation from their recruiter were more successful in graduating boot camp.

The final model resulted in one abnormal logit coefficient, 10.5944, which was the coefficient for interaction between variables BONUS=15-40K and q10=VerySatisfied. The high predicted “odds of success” is due to the 100 percent graduation rate from boot camp for recruits who received a bonus amount between $15,000 and $40,000 and also answered “Very Satisfied” to how satisfied they were with the amount of time spent with their classifier. This study confirms that specific demographics are logically associated with and without military affiliation. The argument that military affiliation affects how recruits’ respond on the New Sailor Survey was presented. To definitely conclude this, further analysis of more data points is needed. Finally, military affiliation showed no increased positive effect on success from boot camp graduation.

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1. INTRODUCTION

Commander, Navy Recruiting Command (CNRC) has the mission of recruiting the best men and women from the U.S.'s diverse population to fill the Navy's ranks (CNRC, 2008). Beginning in April 2002, Navy Personnel Research Studies and Technology (NPRST) conducted the First Watch Surveys. These surveys included a New Sailor Survey (NSS) administered when a recruit arrived at Recruit Training Command (RTC) during the Recruit Quality Assurance Team's (RQAT) time allotment.

On October 1, 2006, NPRST discontinued the administration of its New Sailor Survey instrument.

To CNRC, the information captured in this survey was invaluable. The results provide, first, an assessment of customer satisfaction with the recruiting process and, second, it indicates a path toward process improvement -- if needed.

CNRC desired to continue to capture the same data elements using a survey similar to First Watch NSS, yet tailored to meet its needs. Customizing focused on seven specific recruiting issues. The revised survey captures the same data collected during the First Watch NSS. Unlike First Watch Surveys, the revised method collects data quarterly rather than weekly. Like First Watch, survey administration takes place at "in processing" during new recruits' time with RQAT. The first wave of administering the revised quarterly NSS was conducted during the fiscal year 2007. This study will focus on the data and results acquired during this first wave.

1.1 PURPOSE

When a recruit attrites from the Delayed Entry Program (DEP), CNRC must spend additional resources to find an applicant to replace that lost recruit. The purpose of the New Sailor Survey is to gauge a recruit's satisfaction both

with the recruiting process and the DEP. It is expected that the higher the recruit's satisfaction with these, the less likely that recruit will attrite.

To further reduce attrition, CNRC has a keen interest in analyzing the recruit's immediate family military affiliation. This is an important issue as CNRC examines future marketing strategies. The hypothesis that immediate family military affiliation positively affects recruitment and retention may not hold in the near future. This is because increased numbers of both active and reserve military members may be finding fault with the military's Iraq engagement.

This thesis will focus on the recruit's immediate family military affiliation, defined as the recruit's father, mother, or siblings having served or serving in the military. This study's findings will provide CNRC leadership with an aid in making management decisions about the recruiting process and DEP.

1.2 RECRUITING PROCESS

1.2.1 Recruitment and Qualification

The recruiting process begins by contacting *prospects*, typically individuals between 17 and 21. This is accomplished through high school visits, job fairs, internet referrals, drop-ins at recruiting stations, and other methods. Individuals often ask recruiters for information about multiple service branches. In addition to providing information to the prospective enlistee, the recruiter determines an applicant's eligibility for military service. Questions asked include age, citizenship, education, involvement with the law, use of drugs, and physical and medical conditions that could preclude enlistment.

Applicants who meet initial qualifications participate in the Armed Services Vocational Aptitude Battery (ASVAB). The Assistant Office of the Secretary of Defense (AOSD) in its fiscal year 2000 report, "Population Representation in the Military Services," indicates that the ASVAB is the first step in applying to enlist in the Armed Forces (AOSD, 2001). The ASVAB is a battery of tests used by the Department of Defense (DoD) to determine enlistment eligibility and qualifications for military occupations. Embedded within the ten-test ASVAB is

the Armed Forces Qualification Test (AFQT). This consists of four tests: Arithmetic Reasoning, Mathematics Knowledge, Word Knowledge, and Paragraph Comprehension. The AFQT is a general measure of trainability and a predictor of on-the-job performance. It is also the primary index for recruit aptitude (AOSD, 2001).

Expressed on a percentile scale, AFQT scores reflect an applicant's standing relative to the national population of men and women 18–23 years of age. The scores are grouped into five categories based on the percentile scores shown in Table 1. Categories I and II reflect persons above average in trainability; those in Category III, average; those in Category IV, below average; and those in Category V, markedly below average (AOSD, 2001).

Armed Forces Qualification Test (AFQT) Categories and Corresponding Percentile Score Ranges	
AFQT Category	Percentile Score Range
I	93–99
II	65–92
IIIA	50–64
IIIB	31–49
IV	10–30
V	1–9

Table 1. AFQT Categories and Corresponding Percentile Score Ranges

Another element in qualifying the applicant is dealing with the variety of educational credentials. To handle this, the DoD has implemented a three-tier classification system to better categorize the different general types of military applicants:

- Tier I – Primarily traditional high school graduates and equivalents;
- Tier II – Alternative high school credential-holders [including recipients of General Education Development (GED) certificates, Certificates of Attendance, and Correspondence School diplomas] and;
- Tier III – Non-high school graduates (high school dropouts).

The applicant's next step is to undergo a physical examination and background review at a Military Entrance Processing Station (MEPS). During the examination, physical fitness for military service is assessed. If a temporary or correctable medical problem is detected, the applicant may be required to get treatment before proceeding. Some disqualifying medical conditions may not completely prohibit an applicant from enlisting if an appropriate service waiver is obtained (AOSD, 2001).

On top of the physical standards placed upon applicants, each applicant must meet moral character standards. To partially accomplish this, the recruiter performs a quick initial screening. The applicant receives a more in-depth interview when proceeding up to MEPS. Other moral character checks include a financial credit check and a computerized search for a criminal record. Enlistees with financial problems will most likely struggle on junior enlisted pay. Consequently, credit histories play an integral role in an enlistee's qualifications. Certain types of criminal activity are clearly disqualifying. Less heinous criminal activities require a waiver: the Navy investigates by examining the applicant's circumstances and makes an individual determination of qualification (AOSD, 2001).

1.2.2 Classification

Upon satisfactory completion of the physical, background checks and any waivers, the applicant proceeds to classification. During classification, an applicant sits with a classifier. This classifier weighs Navy needs for specific rates with the individual's desires, test scores, and academic credentials. For example, if the Navy needs aviation electricians in June and the applicant wants to be an aviation electrician, the classifier will generally fill the opening with the applicant. In contrast, even if openings match an applicant's first choice, urgent needs for other rates (e.g., nuclear power technicians) may take precedence. If the

applicant is also qualified for the urgent billet, the classifier may sell it to him or her. If the applicant is not interested, the classifier can offer various incentive packages (Knox 1998, 8).

It is disadvantageous to lose a recruit. A good classifier will use all resources to channel applicants into the proper pipelines. The priority is not to lose a recruit. Upon completion of the classification phase, the qualified applicant is enlisted into the Naval Reserve until he or she ships to boot camp. The actual enlistment often occurs immediately following classification, which is usually the same day as the physical (Knox 1998, 9).

1.3 DELAYED ENTRY PROGRAM (DEP)

1.3.1 Purpose

After enlistment, recruits can take one of two paths. Recruits scheduled to begin boot camp within 30 days are categorized as direct-shippers. Direct-shippers wait to be shipped to boot camp. The other recruits enter the Delayed Entry Program (DEP). The DEP allows recruits to delay their entry into active duty normally for up to 365 days – in some cases, up to 15 months. With this program, recruiters are more efficient in obtaining the required number of recruits that match training and desire to job vacancies as they arise. Hence, the DEP acts as a recruit-queuing device for the military's manpower managers (Henderson 1999, 3).

Another valuable reason for having DEP is to prepare recruits for training. To fulfill that purpose, Commander, Navy Recruiting Command (CNRC) has developed a DEP Leadership Manual for recruiters: how to "motivate, train, and prepare DEPpers [persons in the DEP] mentally and physically for Recruit Training Command" (CNRC Instruction 1133.7A). The recruiter is ultimately responsible for preparing his or her DEPpers for basic training. The recruiter is required to make a minimum of two contacts a month with each recruit of which one must be in person. The goal is to establish a rapport between the recruiter and DEPper. This ensures that the DEPper is still motivated and prepared for

basic training. Because parents can be a major source of influence, the recruiter is required to maintain contact with the parents of DEPpers at least once a month. Further, the Navy's primary method of training and motivating DEPpers is to conduct organized DEP meetings at least once a month. These meetings are usually held for all DEPpers for a particular recruiting station. These meetings allow DEPpers to have contact and train with other DEPpers, and active duty personnel, to learn about Navy life, particularly recruit training. Drilling, saluting, formations, and other various aspects of military culture are demonstrated and taught, simulating the formality of basic training (Nell 1998, 5).

1.3.2 Personnel Qualification Standards (PQS)

A complementary purpose for DEP is to assist the recruit through the DEP Personnel Qualification Standards (PQS). DEP PQS "ensures that DEPpers attain, demonstrate and sustain the basic knowledge and skill levels necessary to ensure a smooth transition from civilian life to entry level Navy life" (CNRC Instruction 1133.7A). The DEP PQS covers 12 separate modules:

1. DEP Responsibility
2. Recruit Training
3. Military Drill
4. Rank and Recognition
5. Naval Uniforms
6. Customs and Courtesies
7. Naval Ships and Aircraft
8. Educational Opportunities
9. Navy Advancement System
10. Safety
11. First Aid
12. Personal Hygiene

The necessary study materials are provided to the DEPper by his or her recruiter. DEP meetings also conduct formal training on the above modules. There are two phases of DEP PQS: 1) the training phase in which DEPpers learn the fundamental information on the modules and 2) the sign-off phase where DEPpers demonstrate to the recruiter that they have retained the knowledge from their training phase. The recruiter signs off the respective qualification for each module as it is successfully demonstrated (Nell 1998, 6).

1.4 MILITARY AFFILIATION

Family tradition influences many military children to pursue careers as military members. Thomas' study concluded that, for Navy personnel, sons of career military fathers choose military careers at three to four times the rate of their peers (Thomas 1984, 293). This thesis focuses on the responses of recruits' New Sailor Survey who have military affiliation. Does this higher propensity to join correlate to greater preparation and/or satisfaction with their recruiting and DEP experiences? How do these relations affect classification or PQS experiences? Thomas' study concluded that military affiliation "is an important factor in determining the supply of enlistees and should be included in military manpower accession supply models."

1.5 THESIS ORGANIZATION

Chapter 2 conducts a literature review on various aspects of this thesis: DEP research, survey research, and military affiliation research. Chapter 3 reviews the data sources and methodology. Chapter 4 analyzes the effect of military affiliation, with respect to descriptive demographic variables and of the New Sailor Survey responses -- individually and as a whole. Chapter 5 presents descriptive demographic statistics with respect to military affiliation and graduation rates from boot camp. In addition, Chapter 5 develops a logistic model to predict success from graduating boot camp. Finally, Chapter 6 provides conclusions and recommendations from the study.

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2. LITERATURE REVIEW

A literature review was conducted to gain an understanding of how to interpret the survey results. A critical element is the effect of the Delayed Entry Program (DEP) on the recruiting process. Likewise, studies and surveys that focus on how immediate family members positively or negatively affect potential recruits are examined.

2.1 RECRUITING / DELAYED ENTRY PROGRAM (DEP)

2.1.1 Matos (1994)

Matos' thesis investigated the relationship between the time an individual spends in DEP and the risk of becoming a DEP loss or leaving the service during the first two years of enlistment. The author utilized log-linear regression models and made recommendations based on conditional probabilities. He found that the probability of DEP attrition was directly proportional to DEP length, whereas first-term attrition probability decreased with DEP length. Hence, the time spent in DEP had a larger effect on attrition during the DEP itself than it did on attrition after the contract accessed. Further, it was found that non-High School Graduate males had the highest attrition proportions, after completing DEP, of any group.

2.1.2 Lukasiewicz (1995)

Lukasiewicz's thesis attempted to explain attrition rates that occurred in the United States Army Recruiting Command DEP management. The study investigated the relationship between the time spent in the DEP and the risk of becoming a loss during the initial entry training. The author conducted a formal analysis that involved an attempt to fit a logistic regression model. The explanatory variables included age of enlistee, AFQT score, enlistment bonus, gender, educational level, race, and time in the DEP. Attrition was found to be lowest for recruits spending between six to eight months in the DEP. Recruits who accepted enlistment bonuses were more likely to attrite than those who did

not. Whites had higher attrition rates than those of any other race and females had higher attrition rates than males. Finally, recruits with AFQT scores of 60 or lower had a much higher rate of attrition than those with scores above 60.

2.1.3 Simpson (1997)

Simpson's thesis developed an optimization-based model to assist the Navy Recruiting Command in placing Nuclear Power Field recruits in the DEP. The author formulated the DEP placement problem as a non-linear optimization model: it minimized overall recruiting costs based on a DEP placement strategy that achieved monthly accession goals. The model used a *new contract objective* that specified the required number of new monthly enlistment contracts that must be signed. The author found that placing new contracts in the DEP for too long increased attrition, whereas placing them for too short a time increased the workload at various levels of the recruiting organization.

2.1.4 Knox (1998)

Knox's thesis analyzed data provided by CNRC and Center for Naval Analysis (CNA). DEP attrition was modeled using logistic regression and tree-structured classification. The DEP logistic model indicated that individuals who accepted incentives prior to enlistment and individuals who change enlistment programs have a significantly lower propensity to attrite from DEP than others do. The complementary DEP tree model indicated that individuals with a low AFQT score, no high school diploma, and a long DEP, had a 97% probability of attrition. The analysis showed that the models predicted poorly at the individual level, despite strong statistical significance. The author asserted that both models were well suited for the problem and provided insight into attrition. Neither method, however, was able to fully explain the phenomenon.

2.1.5 Nell (1998)

Nell's thesis examined the DEP's effectiveness in preparing recruits for basic training. It examined how well the recruits were prepared, the types of

training conducted, how effectively the recruits perceived their DEP training, use of the DEP Personnel Qualification Standards (PQS), DEP meetings, and recruiter/recruit weekly contact. The analysis was based on a survey sample of 1079 recruits at Recruit Training Command (RTC) Great Lakes, Illinois. The author found that training was not conducted in the DEP. DEP PQS was not utilized as a primary training guide. Over one-third of the recruits sampled indicated that they were not told what to expect at basic training. Additionally, over one-third of the recruits felt that the DEP did not prepare them for basic training.

2.1.6 Henderson (1999)

Henderson's thesis sought to identify factors that explained why high school seniors dropped out of DEP in such large numbers. Multivariate data analysis was used to estimate the relationships between a set of explanatory variables with the dependent variable being DEP completion. A binary logistic regression model was used to determine the probability of attrition of high school seniors from the DEP. The results showed that high school seniors who were older, female, and in the lower enlistment test categories, had comparatively high probabilities of dropping out of the DEP.

2.1.7 Ogren (1999)

Ogren's thesis used binary logit models to examine the likelihood to leave the DEP based on effects of personal background characteristics and local area economic conditions. The author modeled DEP attrition as a function of gender, educational level, dependent status, ARQT score, race, ethnicity, moral waiver status, and county-level unemployment rates. Results found that a person's likelihood of leaving the DEP was most affected by gender and educational level. Specifically, women and high school seniors were more likely than men and high school graduates, to leave the DEP.

2.1.8 Navy Personnel Research, Studies, and Technology (Lane et al. 2006)

Navy Personnel Research, Studies, and Technology issued *Delayed Entry Program Attrition: Survey Results*. The project's purpose was to more fully understand the reasons and factors behind DEP attrition. Armed with these, new programs and/or services could be developed to reduce attrition. The study included the development and implementation of two surveys: the DEP Attrite Survey (*n*=600) and the Recruiter Survey (*n*=50). Telephone interviews were conducted with DEP attrites. Recruiters contacted for participation in the Recruiter Survey had recruiting experiences with attrites who also agreed to participate in the DEP Attrite Survey.

The study reported the frequencies of demographics and of responses to questions. Brief paragraphs explained the tables and highlighted results of interest: of 22 influencers to join the Navy listed, the third and eighth ranked factors, respectively, were "Military tradition in family" and "Parents encouraged me to join." Over half (55 percent) reported the overall recruiting experience as excellent or good; however, a relatively large percentage (27 percent) reported a less than satisfactory experience. Further responses found that the trend continued in more specific recruiter questions. Specifically, on average, the recruiter experiences were positive at about a 75 percent rate. Disheartening, though, was the approximate 25 percent negative response rates corresponding to some questions; for example, "Recruiter was honest with me" and "I would recommend recruiter to friend/family member." "Time spent with the classifier," "Jobs available at classification," and "Job assigned at classification" received satisfied percentages of 67.2, 61.1 and 63.7, respectively. Dissatisfied with experiences with these, on the other hand, received percentages of 16.2, 28.9 and 25.8, respectively.

2.2 MILITARY AFFILIATION

2.2.1 Orkand Corp (1983)

Orkand Corp's report, *Parent's Perceptions of Their Influence on Youths' Enlistment Decisions*, was prepared for the Office of Assistant Secretary of Defense. A phone survey of 2,763 parents of 16-21-year-olds was conducted. The report identified these "potential influencers": sex of parent, occupation of parent, education of parent, child's school program, desired educational attainment, child's grade in school, and occupational goal. On the other hand, the report found these "potential non-influencers": sex of child, parents' marital status, family income, racial or ethnic group, and child's school type. The survey was conducted to determine the nature and extent of parental influence on the military enlistment decisions. The report concluded that if efforts aimed at parents were undertaken, the Services should concentrate on parents whose aspirations for their children included jobs that use skills provided by Armed Services training. In general, the overall results pointed to a lack of importance of perceived parental influence on children's decisions to enlist in the Armed Services.

2.2.2 Thomas (1984)

Thomas' article, in the *Armed Forces & Society,* researched military parental effects on enlisted personnel. The data analyzed came from the *1978 DoD Survey of Officers and Enlisted Personnel* that was administered in late January 1979. It surveyed 92,504 men and women on active duty in all four branches of the U.S. military. The response rate was 62.2 percent. The author used the phrase "intergenerational military" to indicate active duty personnel with parent(s) who had been or were presently in the military. Respondents were classified by their answers to questions on family military experience in one of three groups:

- Nonjuniors: military personnel whose parent(s) had no military experience;

- Other juniors: military personnel whose parent(s) had some military experience, but less than 10 years;
- Career juniors: military personnel with either mother or father having 10 or more years of experience.

First, the author presented tables indicating various percentages and numbers from the data broken down by various categories and groups. Most interestingly, the data suggested that enlisted females exhibited greater military intergenerational tendencies than their male counterparts. Hence, parental military experience was more likely to influence females in choosing the military. Second, the author employed multiple classification analysis to test various hypotheses. The most notable finding was that first career juniors for the Navy (60.8 percent) had the strongest direct branch linkage of the four armed forces. In addition, parental educational levels indicated that career juniors came from families with higher socioeconomic status, on average, than enlisted peers. It was also determined that career juniors entered at an earlier age and were more satisfied with military life. Finally, career juniors had higher reenlistment intentions and longer years of service intentions. A greater percentage of them planned a 20-year military career. The author concluded that the proportion of career juniors in the population was an important factor in determining the supply of enlistees and should be included in military manpower accession supply models.

2.2.3 Robertson (1993)

Robertson authored a report for the Navy Personnel Research and Development Center concerning the Navy New Recruit Survey. The objective of the survey was to assess effectiveness of recruiting incentives, advertising, and applicant processing. Also, it was to provide input data for trade-off analysis of resource allocation. Eight content areas were developed for the survey: reasons for joining, influencers, parental background, ads' awareness, ads' influence,

recruiter contact, special enlistment incentives, and job interests. The survey was administered to 4920 new recruits during three periods from 1990 to 1991.

Top reasons to join the Navy were for high-tech training, preparation for a civilian job, travel, serve country, and fringe benefits. The report did indicate that the most encouraging influencers to join the Navy were parents, friends, or relatives in the Navy. Ironically, the friends were not only the most encouraging influencers to join the Navy, but the most discouraging. Of interest, changes in encouragement to join the Navy because of the Gulf War did occur and were generally positive. Discouraging influences, however, increased from the mother, spouse, and friends also because of the Gulf War. In addition, the report indicated that calls and visits by the recruiter had substantially greater impact than did any of the media ads. This served to highlight the critical importance of effective recruiters. The author was quick to note, however, that media ads were essential to initiate an applicant's interest.

2.2.4 Shumate (1999)

Shumate's dissertation employed the Youth Attitude Tracking Survey to investigate the motivations, sources, and influencers of youth proclivity to join the military. The author attempted to determine the impact of various exogenous variables on youth propensity to enlist. The findings suggested that American youth were attracted to specific aspects of military service: duty to country, leadership, teamwork, and physical challenges. Additionally, the major agents of influence were family members, followed closely by peers. Specifically, the author found that when primary agents of influence, such as family and friends were supportive of the military enlistment, the individual was more likely to enlist. Furthermore, youth with direct exposure to agents of influence with military experience were more likely to enlist. Hence, youth who had a parent or sibling who served in the military typically had a higher propensity to enlist than those who did not.

2.2.5 Wilcox (2001)

Wilcox's thesis examined the attitudes, values, and beliefs of teenagers regarding military service. The study identified the next generation from the perspective of the interconnected relationship of five forces of influence: "baby boomer" parents, education, the new economy, technology, and the media. The author collected information on youth attitudes via 36 focus groups, including 677 teenagers at nine high schools in six states. The data obtained from the focus groups revealed common trends across the schools and states: teenagers exhibited relatively little knowledge or understanding of the military; higher education was the military's chief competitor for recruits; and the dissuaders of military services were far stronger than the persuaders of service.

Several interesting findings were reported in the thesis. The percentage of focus group participants with an immediate family member who served in the military was 40.6 percent. The author found that many of today's "influencers" – parents, other relatives, and educators – apparently did not regard a military career as "successful." Of the only six percent of students who planned to join the military, a common reason for entering the military was "my dad served." Finally, most teens in the focus groups were very reluctant to talk with a recruiter. Focus group discussions suggested that military recruiters were not viewed positively. The teens felt that the recruiters looked desperate, called too much, and lied to them.

2.2.6 DoD Youth Poll Wave 11 (Defense Human Resources Activity 2006)

The DoD Youth Poll's primary focus was to measure the likelihood of youth ages 16-21 to join the military. It was also to identify the sources of information that influenced their decisions. The June 2006 Youth Poll collected information utilizing 20-minute interviews with a "nationally representative" sample of 3,877 youth between the ages 16-21. The report gave an exhaustive summary of demographic percentages sampled and trend analysis for the past

decade or two. Also included were longitudinal trend comparisons of the polls' results since the inception of DoD Youth Poll Wave 1 in 2001.

The survey found that 20 percent fathers, 2 percent mothers, 6 percent brothers, and 2 percent sisters of the interviewees were serving or had previous military service. Results suggested that increased support from immediate and extended family had the potential to yield sizable gains to increase a youth's propensity to join the military. Nearly two-thirds of youth reported that the war on terrorism had resulted in them being less likely to join the military.

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3. DATA AND METHODOLOGY

3.1 DATA SOURCES

The analysis reported here was based on the New Sailor Survey instrument designed by Commander, Navy Recruiting Command (CNRC). With the assistance of the staff at the Recruit Training Command (RTC) in Great Lakes, Illinois, the survey was administered to 3047 Navy Recruits during FY-07.

The results for Question 15 were used to determine if the recruit had military affiliation or not. A recruit is defined to have military affiliation when his or her father, mother, or sibling had served or is serving in the military. A recruit whose grandparents had served in the military was not classified as having military affiliation. Figure 1 shows how Question 15 was presented in the survey.

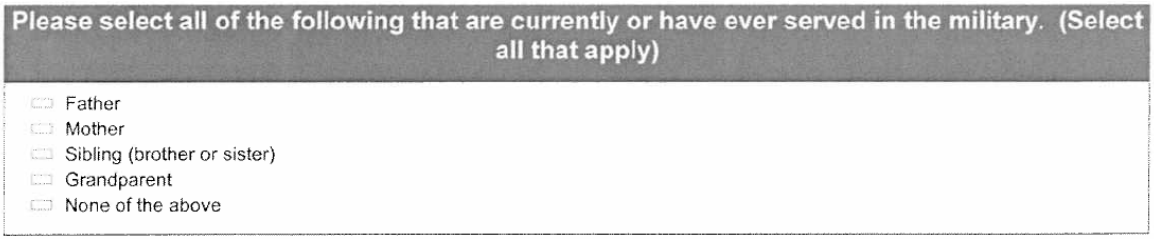

Figure 1. Question 15

It was determined that misinterpretation of Question 15 was possible. For example, a respondent may have concluded that, since he or she had neither father, mother, sibling nor grandparent that were currently serving or had ever served in the military, the question was not relevant to them. In doing so, it was determined that the respondent would leave the question blank and continue on with the survey. Of the 3047 survey respondents, 235 left Question 15 blank. A blank Question 15, however, might be due to the respondent simply skipping the question or experiencing survey fatigue. The 3047 respondents' survey results were individually scrutinized and categorized as "fatigued," "skipped," or "none." Each category was easily determined. One hundred and one survey results were categorized as "fatigued" due to the respondent stopping after the first few questions. The 71 respondents whom answered the first few questions (or the

first page) and, then, skipped to the last few questions (or the last page), were categorized as “skipped.” Finally, respondents who answered the questions leading up to Question 15, left Question 15 blank, and, then, continued answering the questions following, were categorized as “none.” This amounted to 63 respondents. Therefore, the 101 “fatigued” and 71 “skipped” respondent surveys were deleted from the data set, bringing the remaining total to 2,875 surveys. This was necessary because there was no way to determine if the recruits had military affiliation other than through Question 15.

The next step was to merge survey respondents’ results with demographic data. The New Sailor Survey’s second question asked for a social security number. The social security number served as the link between databases for demographic and status data for the respondent. Defense Manpower Data Center (DMDC) provided the match to determine if the social security numbers entered on the survey were valid and could be linked to an existing recruit. An “Informed Consent and Privacy Act Statement” (See Appendix A. New Sailor Survey Instrument) was attached to the survey as the cover page. It stated, “Your decision to take part in this survey effort is voluntary and you may refuse to take part, or choose to stop taking the survey, at any time.” Further, it stated, “All responses will be held in confidence by CNRC. Information you provide will be statistically summarized with the responses of others, and will not be attributable to any single individual. The information provided will not become part of your military record and will not affect your career in any way.” Unfortunately, as previously explained with Question 15, many respondents chose not to include their social security number. Invalid and blank social security number responses reduced the total of surveys from 2,875 to 2,101. In addition, of the original 3,047 surveys, 2184 had social security numbers. Of the 172 surveys deleted due to “fatigued” or being “skipped” on Question 15, 89 did not have a matching social security number. Thus, on Question 15, when considering only those surveys with matching social security numbers, only 83 surveys were deleted due to “fatigued” or “skipped.”

Comparative analysis was done on the beginning data set of 3,047 surveys with the 2,101 surveys that were ultimately used in this study. No significant discrepancies in survey responses were noted. Thus, the 2,101 surveys were considered a representative sampling of the beginning 3,047 surveys. The 2,101 surveys identified for analysis produced 929 recruits with military affiliation, or roughly 44 percent. Likewise, 1172 recruits, or roughly 56 percent, had no military affiliation.

Demographic and other descriptive data were obtained from the Personnel Recruiting for Immediate and Delayed Enlistments (PRIDE) database at Commander, Navy Recruiting Command (CNRC). Social security numbers from the 2,101 surveys were matched with the PRIDE First-Last file. Duplicates were stripped, keeping only the most recent entries.

Since the New Sailor Survey was administered only recently, the DMDC data for these individuals had not been updated. Thus, it did not completely reflect whether recruits who had taken the survey graduated or attrited from boot camp. Therefore, the Navy Retention Monitoring System, which is maintained by the Center for Career Development, Pers-00R, was tapped for information. This database contains a list of those individuals who were a loss from the Navy. The losses are identified by SSN and by the unit identification code (UIC) from which they were lost, in this case, RTC. The assumption was made individuals who do not appear on this list while at boot camp, graduated from RTC. The result was that 198 of the 2,101 enlisted respondents attrited from boot camp, which amounts to 9.4 percent. This falls within historical averages of attrition from boot camp that fluctuate between eight and 10 percent. Further, cross-referencing the 595 known recruits' status from the DMDC database with PRIDE validated this assumption. Not one discrepancy was found.

Finally, Question 20 asked the recruit to indicate his or her level of awareness regarding various Navy sponsorships (e.g. NFL, NASCAR, NBA etc.) The responses with respect to military affiliation can be found in the appendix (See Appendix B: Survey Question Results). The first quarterly administration of

the New Sailor Survey in January 2007, however, did not have Question 20. Therefore, Question 20 will not be included in the analysis in Chapters 4 and 5.

3.2 METHODOLOGY

The software packages Clementine (data mining software), Excel (spreadsheet), and JMP and S-plus (statistical) were utilized for this study. Descriptive demographic variables and survey responses were converted into binary flags and categorical variables, as appropriate. Chi-squared tests were performed to see if military affiliation was associated with the descriptive demographic variables, individual survey responses, and survey responses as a whole. Graduation rates by military affiliation and demographic variables were computed. Finally, logistic regression was performed on the demographic variables to determine a base model by which to best predict success from graduation of boot camp. This is followed by stepAIC. The S-plus addterm.glm function was modified to handle missing values and applied to see what survey questions would best improve the model. Exploratory analysis revealed interactions between predictor variables. The Hosmer-Lemeshow test for logistic regression was used as a goodness-of-fit test for the logistic model. Therefore, over-fitting three-way interactions were trimmed from the final model.

4. MILITARY AFFILIATION ANALYSIS

4.1 MILITARY AFFILIATION DESCRIPTIVE DEMOGRAPHIC VARIABLES ANALYSIS

A chi-squared test is utilized to test whether the frequency distribution of certain observed events in a sample is consistent with a particular theoretical distribution. For the purposes of this study, the chi-squared test was used to test for independence. A test of independence was used to assess whether military affiliation is associated with the descriptive demographic variables. A chi-square probability of 0.10 or less was interpreted as justification for rejecting the null hypothesis, i.e., concluding that the variables corresponding to military affiliation/no military affiliation are associated with the survey responses.

The variable MILITARY AFFILIATION was derived as a binary flag for Military Affiliation (1) and No Military Affiliation (0). Individual descriptive demographic variables were compared to MILITARY AFFILIATION. A chi-squared test was performed on each descriptive demographic variable for the recruits who took the New Sailor Survey. Of the 14 descriptive demographic variables analyzed, four had relationships that were significant with a chi-square probability of 0.10 or less.

Recall from Section 4.1 that the original 3,047 survey responses were trimmed to 2,101 survey responses. This was mainly due to missing social security numbers, which served as the link between survey responses, demographics and graduation rates. The inability to determine whether or not a recruit had military affiliation due to survey fatigue or skipping Question 15 also resulted in trimming survey responses. Again, comparative analysis was done on the beginning data set of 3,047 surveys with the 2,101 surveys that were ultimately used in this study. No significant discrepancies in survey responses were noted. Thus, the 2,101 surveys were considered a representative sampling of the beginning 3,047 surveys.

4.1.1 MILITARY AFFILIATION vs. AFQT

Armed Forces Qualification test (AFQT) scores were grouped according to the test score categories used by the military to determine mental eligibility. The scores utilized a four-level set for 31-49 (IIIB), 50-64 (IIIA), 65-92 (II), and 93-99 (I). Table 2 and Figure 2 show that AFQT scores in MILITARY AFFILIATION were distributed nearly identically. A chi-squared test between AFQT and MILITARY AFFILIATION produced a test statistic of 0.7766 resulting in a p-value of 0.8551. This p-value suggests that there is *not* a significant difference in distribution between the two variables.

AFQT	Military Affiliation	No Military Affiliation
I	68	76
II	374	477
IIIA	253	313
IIIB	234	306
n->	929	1172

Table 2. MILITARY AFFILIATION vs. AFQT

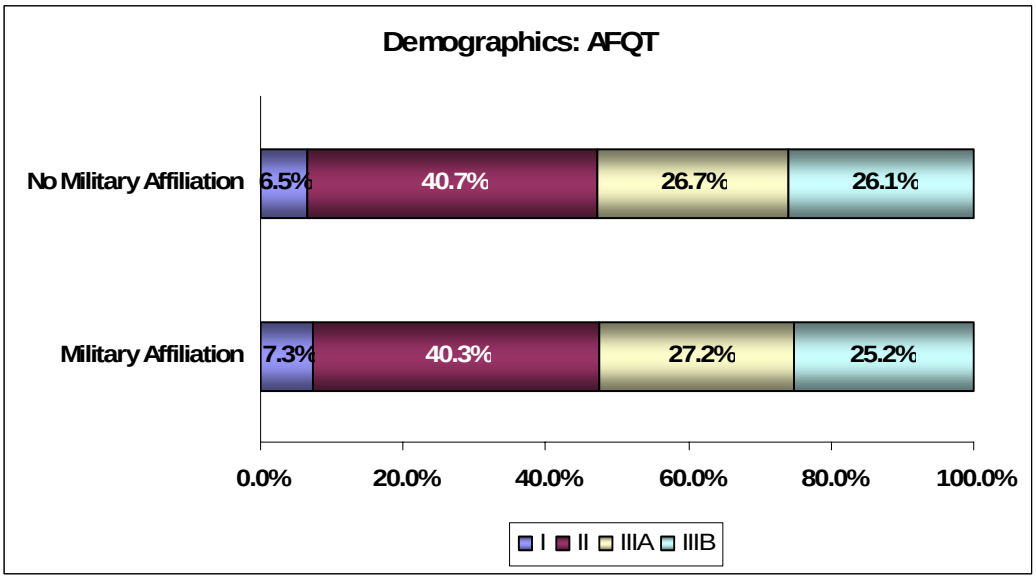

Figure 2. MILITARY AFFILIATION vs. AFQT

4.1.2 MILITARY AFFILIATION vs. AGE

The derivation of the recruits' age utilized the "candate" (i.e., entered boot camp) and "dobdate" (i.e., date of birth) entries in the PRIDE First-Last files. By subtracting the "dobdate" from the "candate" entry; then, dividing by 365.242199 (days/year), the recruit's age in years was determined. The variable AGE was derived into a three-level set for 17 to 18-year-olds (17-18), 19 to 20-year-olds (19-20), and 21 years or older (>=21). Table 3 and Figure 3 show that AGE levels in MILITARY AFFILIATION were distributed close to one another. A chi-squared test between AGE and MILITARY AFFILIATION produced a test statistic of 1.9314 resulting in a p-value of 0.3807. This p-value suggests that there is *not* a significant difference in distribution between the two variables.

AGE	Military Affiliation	No Military Affiliation
17-18	240	335
18-19	337	409
>=21	351	428
n->	928	1172

Table 3. MILITARY AFFILIATION vs. AGE

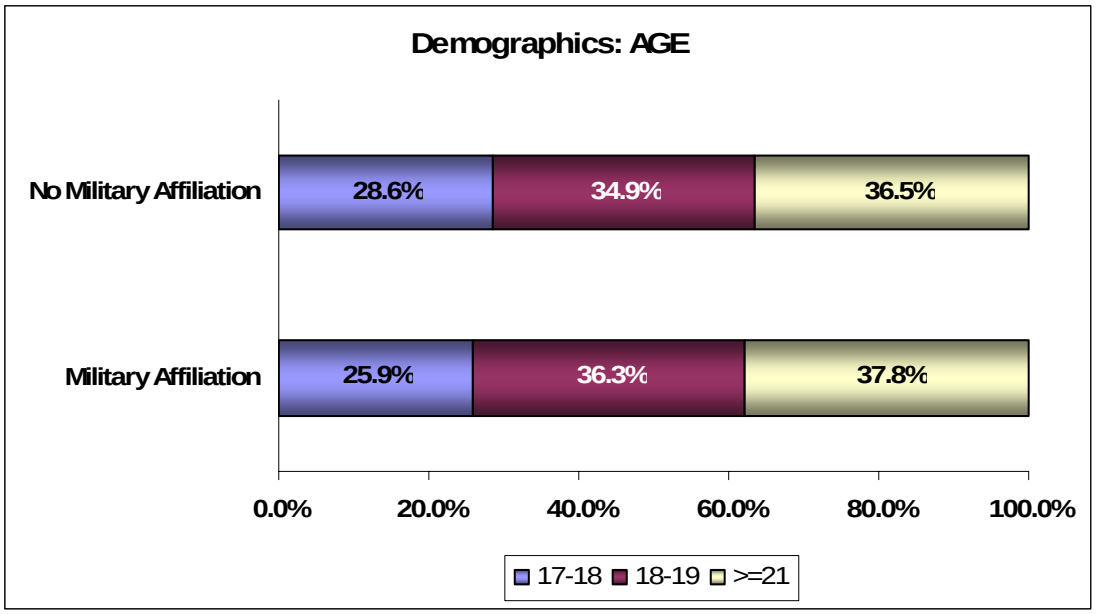

Figure 3. MILITARY AFFILIATION vs. AGE

4.1.3 MILITARY AFFILIATION vs. BONUS

BONUS was derived into a three-level set. The first set comprised of no bonus to $550 (0-550). The second set comprised of bonuses ranging from $3,000 to $12,000 (3-12K). The third ranged from $15,000 to $40,000 (15-40K). Table 4 and Figure 4 show that BONUS amounts in MILITARY AFFILIATION were distributed nearly identically. A chi-squared test between BONUS and MILITARY AFFILIATION produced a test statistic of 0.0824 resulting in a p-value of 0.9596. This p-value suggests that there is *not* a significant difference in distribution between the two variables.

BONUS	Military Affiliation	No Military Affiliation
0-550	401	499
3-12K	402	514
15-40K	126	159
n->	929	1172

Table 4. MILITARY AFFILIATION vs. BONUS

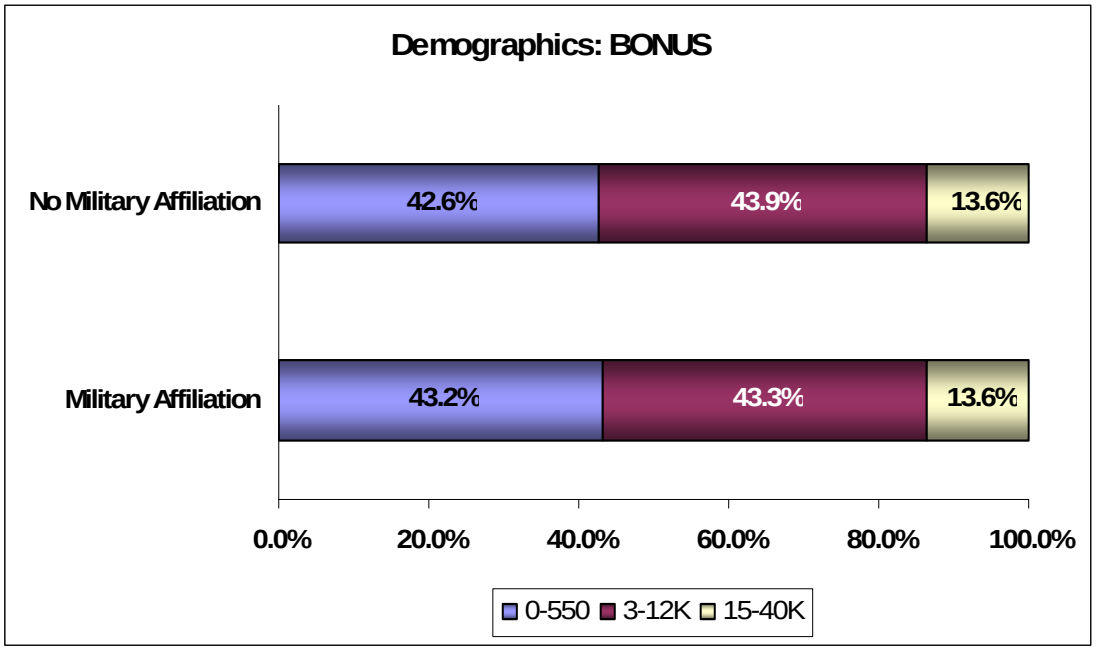

Figure 4. MILITARY AFFILIATION vs. BONUS

4.1.4 MILITARY AFFILIATION vs. CITIZEN

The variable CITIZEN was derived as a binary flag for U.S. Citizen (1) and non-U.S. Citizen (0). Table 5 and Figure 5 show that only 20 recruits (2.2%) with military affiliation were not U.S. citizens, whereas 84 recruits (7.2%) with no military affiliation were not U.S. citizens. A chi-squared test between CITIZEN and MILITARY AFFILIATION produced a test statistic of 27.6945 resulting in a p-value of 0.0000 (virtually zero.) This p-value suggests that there *is* a significant difference in distribution between the two variables.

CITIZEN	Military Affiliation	No Military Affiliation
US Citizen	909	1088
Not US Citizen	20	84
n->	929	1172

Table 5. MILITARY AFFILIATION vs. CITIZEN

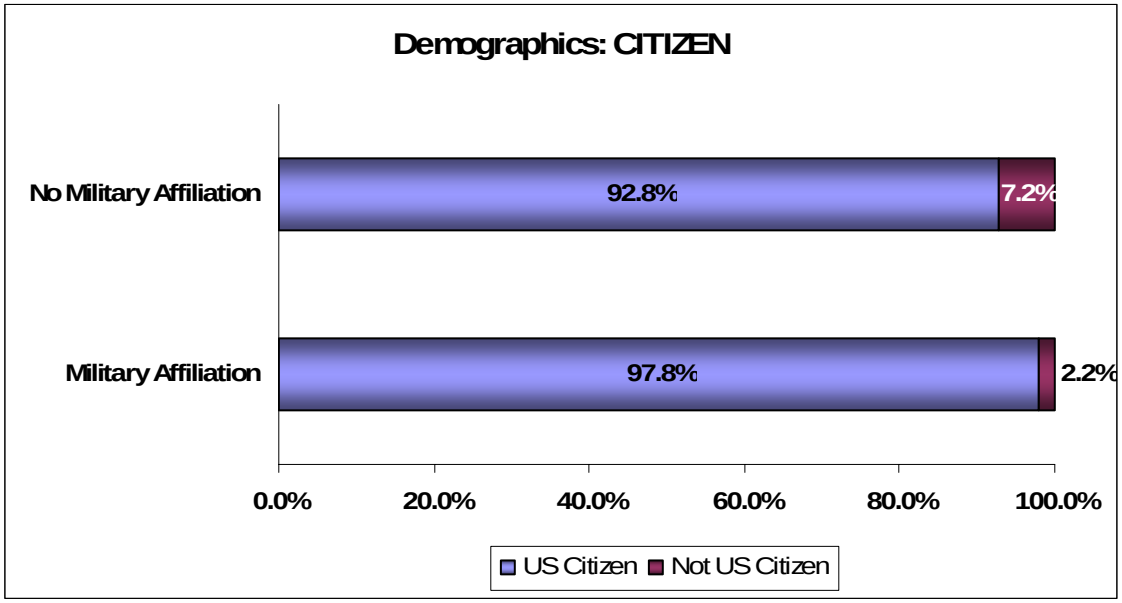

Figure 5. MILITARY AFFILIATION vs. CITIZEN

4.1.5 MILITARY AFFILIATION vs. COLLEGE

The variable COLLEGE was derived from the PRIDE First-Last file entry "CIVED." "CIVED" is a numeric code indicating the number of years of the recruit's education. "CIVED" codes of 12 or less received the binary flag No College (0). "CIVED" codes of 13 or more received the binary flag Some College (1). Table 6 and Figure 6 show that COLLEGE experience between MILITARY AFFILIATION were distributed nearly identically. A chi-squared test between COLLEGE and MILITARY AFFILIATION produced a test statistic of 0.0077 resulting in a p-value of 0.9302. This p-value suggests that there is *not* a significant difference in distribution between the two variables.

COLLEGE	Military Affiliation	No Military Affiliation
Some Collge	846	1066
No College	83	106
n->	929	1172

Table 6. MILITARY AFFILIATION vs. COLLEGE

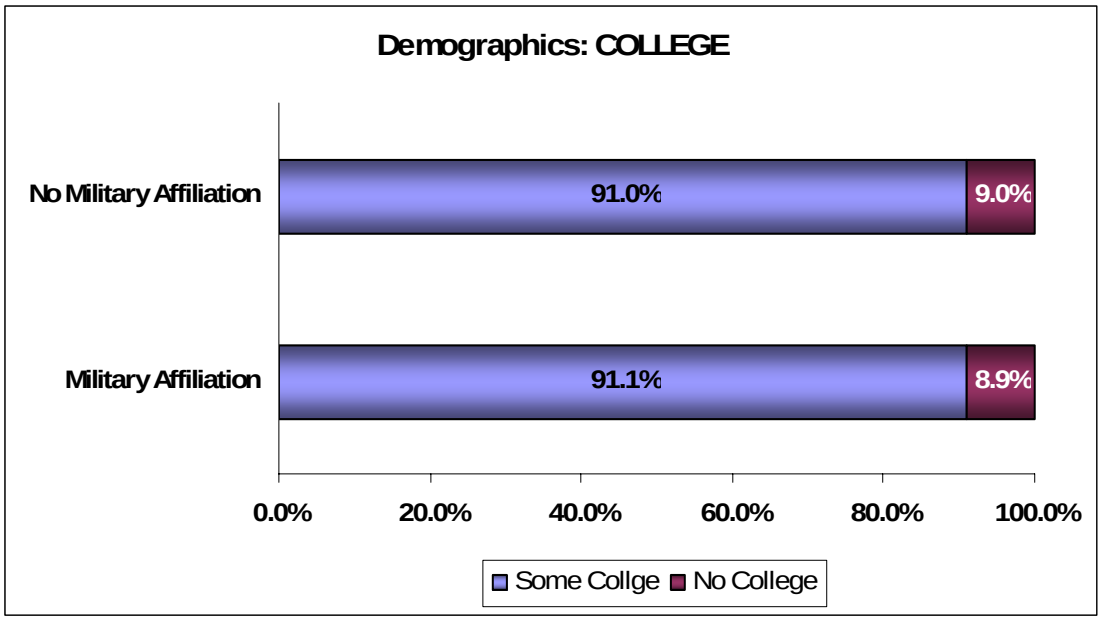

Figure 6. MILITARY AFFILIATION vs. COLLEGE

4.1.6 MILITARY AFFILIATION vs. DEPENDENTS

The variable DEPENDENTS was derived from the PRIDE First-Last file entry "depend," which is a numeric code indicating the number of dependents the recruit has. A binary flag No Dependents (0) was assigned to "depend" codes of zero. A binary flag Dependents (1) was assigned to numeric "depend" codes of one or more. Table 7 and Figure 7 show that DEPENDENTS in MILITARY AFFILIATION were distributed close to one another. A chi-squared test between DEPENDENTS and MILITARY AFFILIATION produced a test statistic of 0.4341 resulting in a p-value of 0.5100. This p-value suggests that there is *not* a significant difference in distribution between the two variables.

DEPENDENTS	Military Affiliation	No Military Affiliation
No Dependents	906	1148
Dependents	23	24
n->	929	1172

Table 7. MILITARY AFFILIATION vs. DEPENDENTS

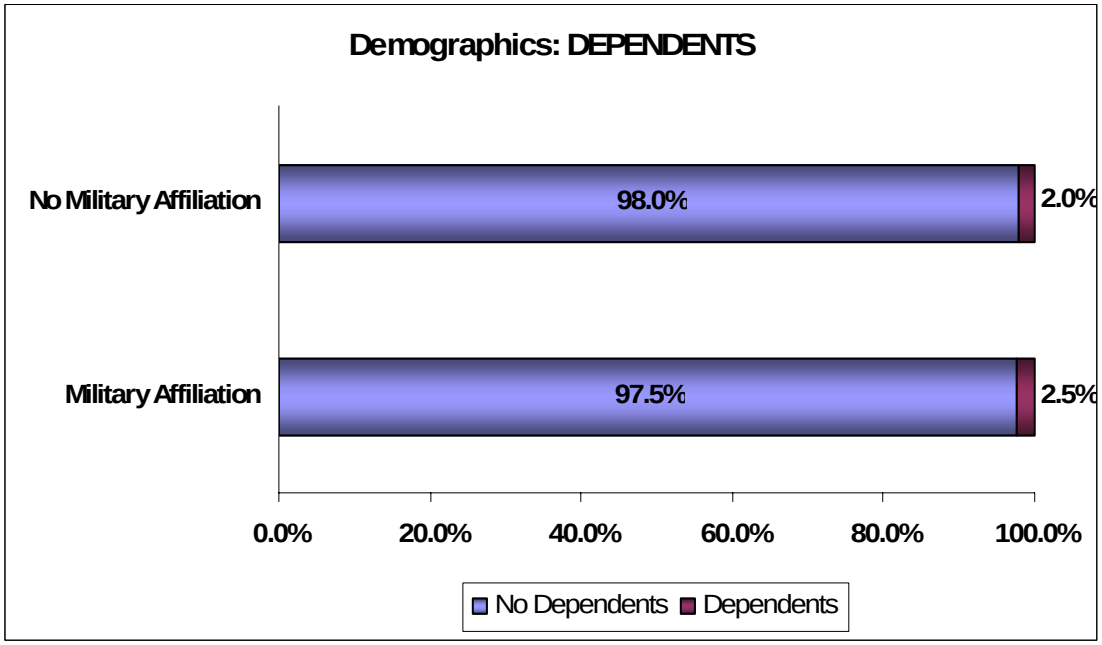

Figure 7. MILITARY AFFILIATION vs. DEPENDENTS

4.1.7 MILITARY AFFILIATION vs. HISPANIC

The variable HISPANIC was derived by splitting 17 Department of Defense ethnic codes into a binary flag. Ethnic codes of Hispanic, Puerto Rican, Mexican, Cuban, and Latin American Hispanic were assigned the binary flag Hispanic (1). All other ethnic codes were assigned the binary flag non-Hispanic (0). Table 8 and Figure 8 show that only 133 recruits (14.3%) with military affiliation are non-Hispanic, whereas 258 recruits (22.1%) with no military affiliation are Hispanic. A chi-squared test between HISPANIC and MILITARY AFFILIATION produced a test statistic of 20.2703 resulting in a p-value of 0.0000 (virtually zero.) This p-value suggests that there *is* a significant difference in distribution between the two variables.

HISPANIC	Military Affiliation	No Military Affiliation
Non-Hispanic	796	914
Hispanic	133	258
n->	929	1172

Table 8. MILITARY AFFILIATION vs. HISPANIC

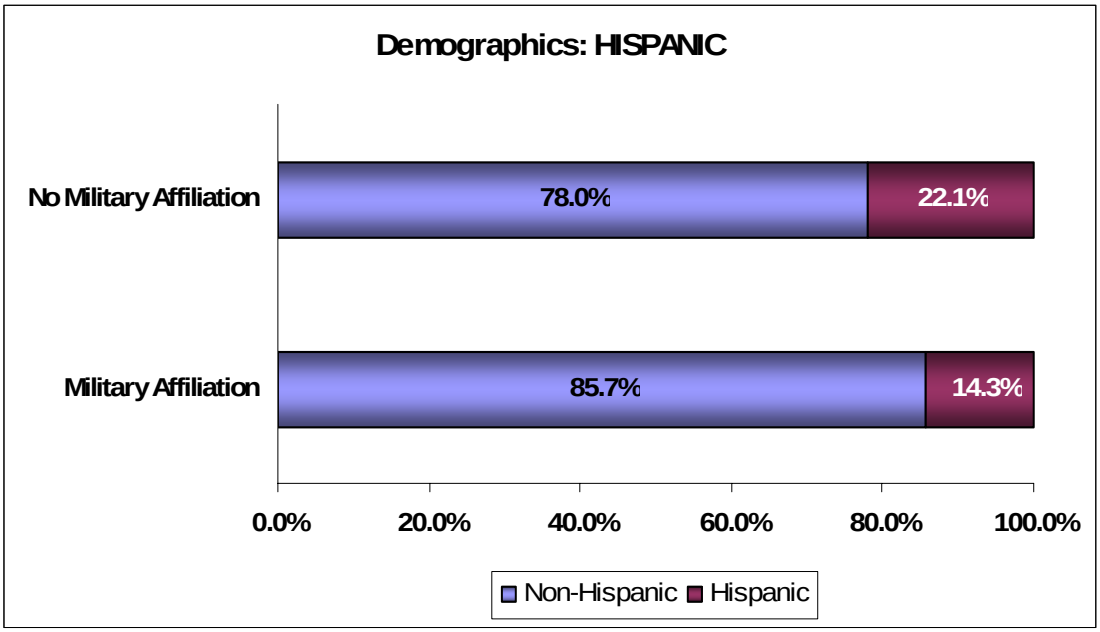

Figure 8. MILITARY AFFILIATION vs. HISPANIC

4.1.8 MILITARY AFFILIATION vs. MALE

The variable MALE was derived as a binary flag for Male (1) and Female (0). Table 9 and Figure 9 show that only 223 recruits (24.9%) with military affiliation were Female, whereas 245 recruits (20.9%) with no military affiliation were Female. A chi-squared test between MALE and MILITARY AFFILIATION produced a test statistic of 2.8762 resulting in a p-value of 0.0899. This p-value suggests that there is a difference in distribution between the two variables.

MALE	Military Affiliation	No Military Affiliation
Female	223	245
Male	706	927
n->	929	1172

Table 9. MILITARY AFFILIATION vs. MALE

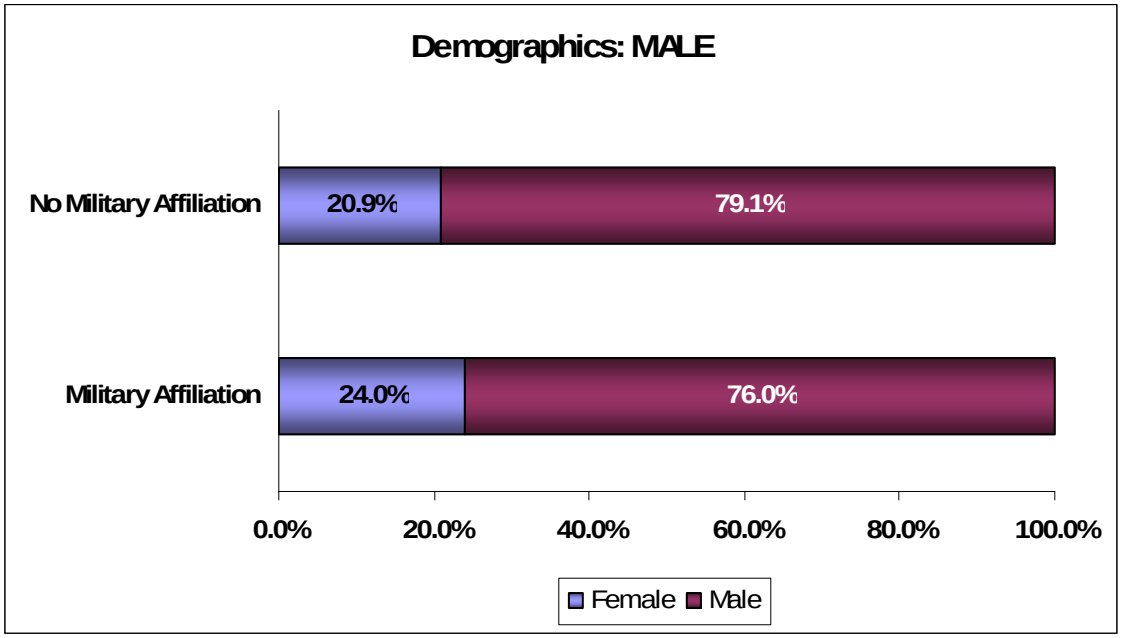

Figure 9. MILITARY AFFILIATION vs. MALE

4.1.9 MILITARY AFFILIATION vs. PAYGRADE

The variable PAYGRADE was derived from a numeric code indicating the enlisted rank a recruit was before he entered boot camp (e.g. 1 = E-1, 2 = E-2, 3 = E-3). A binary flag E-1 (0) was assigned to codes of zero. A binary flag > E-1 (1) was assigned to numeric codes of two or three. Table 10 and Figure 10 show that PAYGRADE between MILITARY AFFILIATION were distributed close to one another. A chi-squared test between PAYGRADE and MILITARY AFFILIATION produced a test statistic of 0.7648 resulting in a p-value of 0.3818. This p-value suggests that there is *not* a significant difference in distribution between the two variables.

PAYGRADE	Military Affiliation	No Military Affiliation
E-1	817	1045
> E-1	112	127
n->	929	1172

Table 10. MILITARY AFFILIATION vs. PAYGRADE

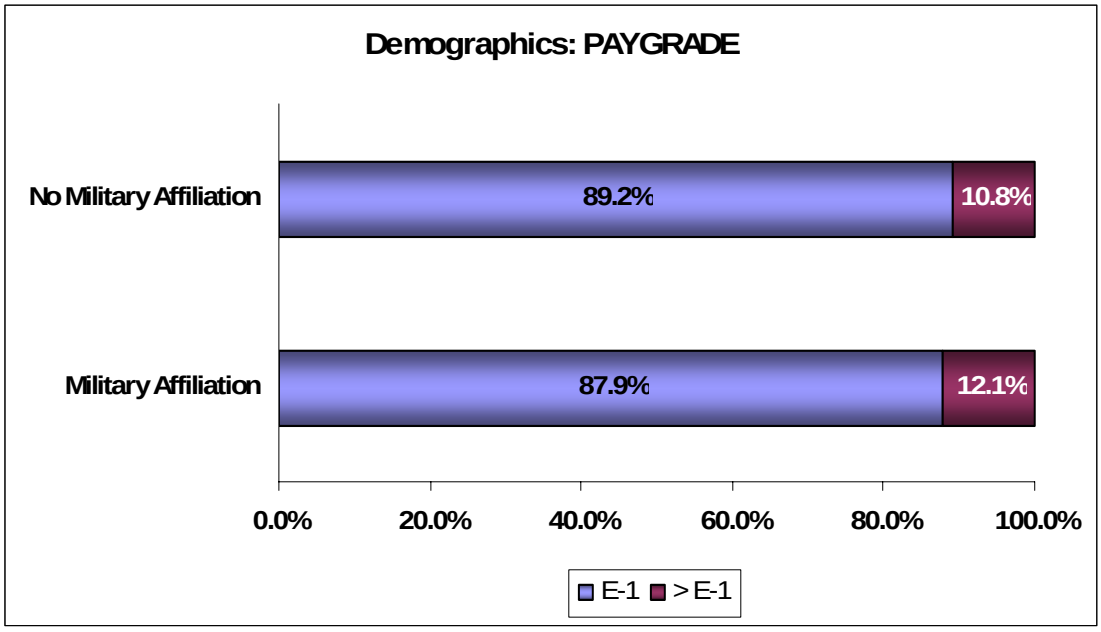

Figure 10. MILITARY AFFILIATION vs. PAYGRADE

4.1.10 MILITARY AFFILIATION vs. RACE

RACE was derived by reducing 24 Department of Defense race codes into a four-level set. The largest groups, White and Black/African American, were categorized White ("W") and Black ("B"), respectfully. The three race codes, or any combination of Asian, Native American/Other Pacific Islander, and American Indian/Native Alaskan, were combined for the category of Asian Pacific Islander, or Native American ("APINA"). Finally, 15 codes that represent mixed races were combined into a category for other ("O"). Table 11 and Figure 11 show that RACE between MILITARY AFFILIATION were distributed close to one another. A chi-squared test between RACE and MILITARY AFFILIATION produced a test statistic of 3.1839 resulting in a p-value of 0.3641. This p-value suggests that there is *not* a significant difference in distribution between the two variables.

RACE	Military Affiliation	No Military Affiliation
White	554	715
Black	157	201
Asian Pacific Islander or Native American	140	180
Other	61	56
n->	929	1172

Table 11. MILITARY AFFILIATION vs. RACE

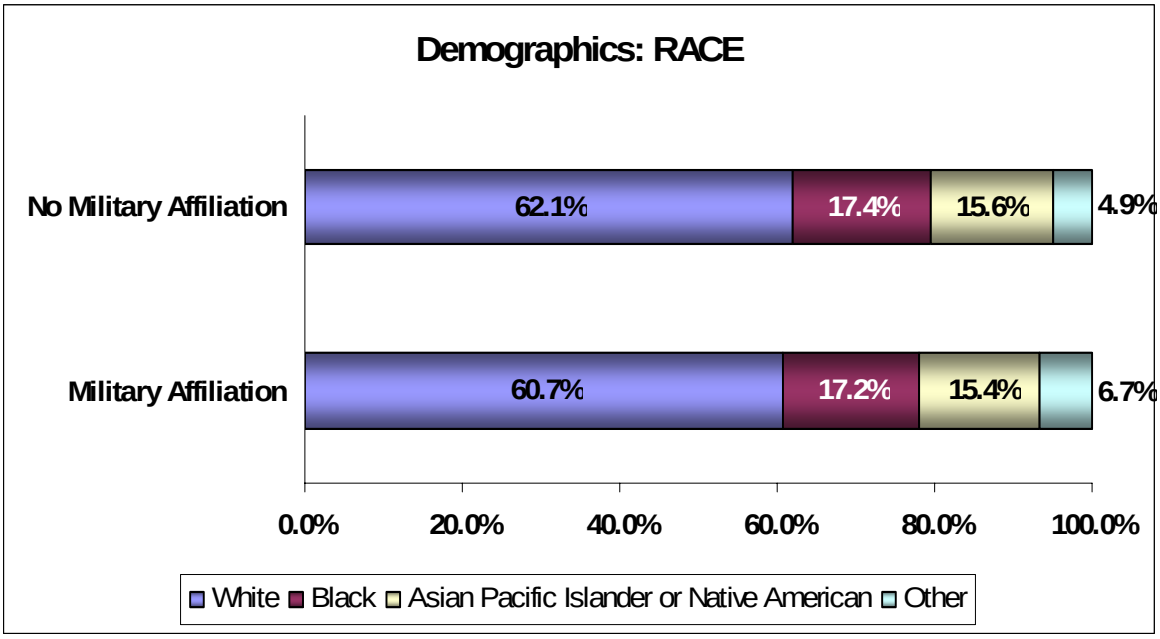

Figure 11. MILITARY AFFILIATION vs. RACE

4.1.11 MILITARY AFFILIATION vs. REGION

REGION was derived by dividing the 26 represented Navy Recruiting Districts (NRD) into a four-level set of Central, North, South, and West. NRDs Chicago, Minneapolis, Dallas, Houston, St. Louis, and San Antonio were combined into the REGION category Central. NRDs New England, New York, Ohio, Philadelphia, Pittsburgh, and Michigan were combined into the REGION category North. NRDs Jacksonville, Atlanta, Nashville, Raleigh, Richmond, New Orleans, and Miami were combined into the REGION category South. Finally, NRDs Denver, Phoenix, Los Angeles, Portland, San Francisco, Seattle, and San Diego were combined into the REGION category West. Table 12 and Figure 12 show that for this survey military affiliation was most highly linked to the South, whereas no military affiliation was most highly linked to the West. A chi-squared test between REGION and MILITARY AFFILIATION produced a test statistic of 8.8293 resulting in a p-value of 0.0316. This p-value suggests that there *is* a significant difference in distribution between the two variables.

REGION	Military Affiliation	No Military Affiliation
Central	147	200
North	219	312
South	305	316
West	258	343
n->	929	1172

Table 12. MILITARY AFFILIATION vs. REGION

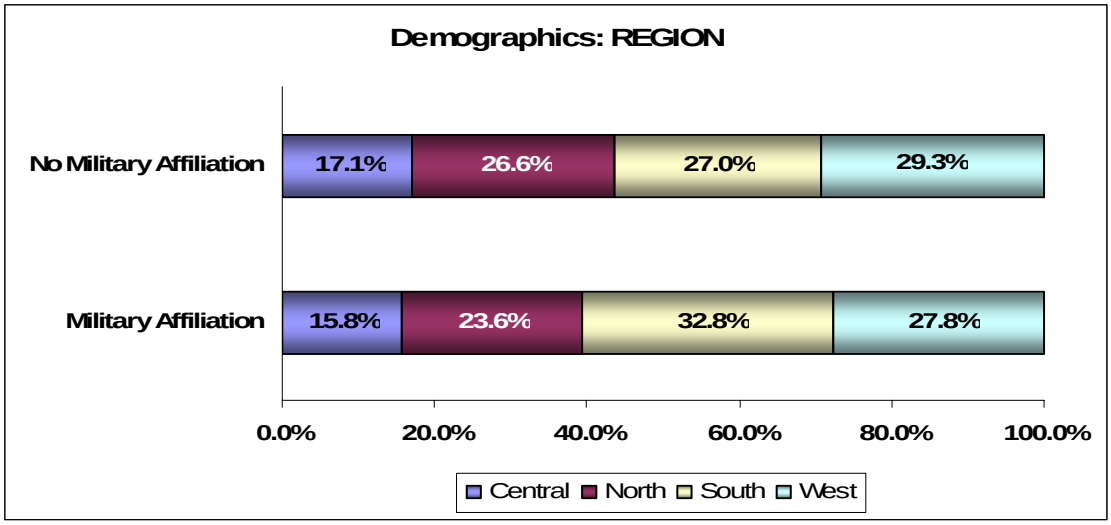

Figure 12. MILITARY AFFILIATION vs. REGION

4.1.12 MILITARY AFFILIATION vs. SINGLE

The variable SINGLE was derived as a binary flag for Single (1) and non-Single (0). Table 13 and Figure 13 show that SINGLE statuses between MILITARY AFFILIATION were distributed very close to one another. A chi-squared test between SINGLE and MILITARY AFFILIATION produced a test statistic of 0.4069 resulting in a p-value of 0.5235. This p-value suggests that there is *not* a significant difference in distribution between the two variables.

SINGLE	Military Affiliation	No Military Affiliation
Single	907	1149
Non-Single	22	23
n->	929	1172

Table 13. MILITARY AFFILIATION vs. SINGLE

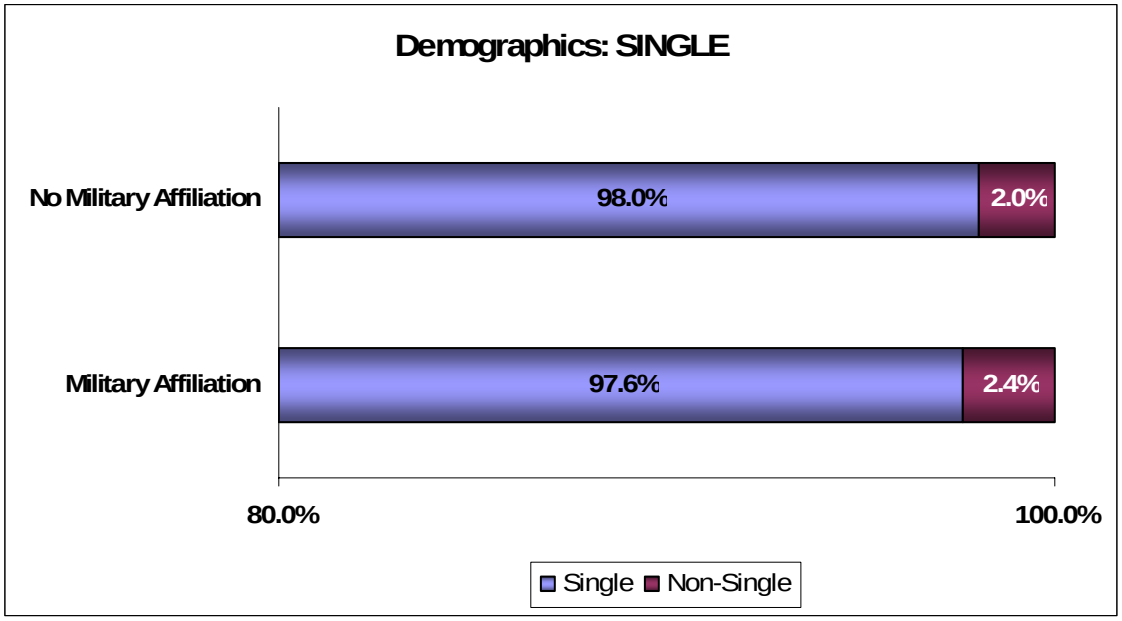

Figure 13. MILITARY AFFILIATION vs. SINGLE

4.1.13 MILITARY AFFILIATION vs. SURVEY

SURVEY is a four-level set based on when the recruit took the survey. The first set took the survey in the winter (Jan07). The second set took the survey in the spring (Mar07). The third set took the survey in the summer (Jun07). The final set took the survey in the fall (Sep07). Table 14 and Figure 14 show that SURVEY dates between MILITARY AFFILIATION were distributed close to one another. A chi-squared test between SURVEY and MILITARY AFFILIATION produced a test statistic of 3.0171 resulting in a p-value of 0.3890. This p-value suggests that there is *not* a significant difference in distribution between the two variables.

SURVEY	Military Affiliation	No Military Affiliation
Jan07	218	272
Mar07	144	211
Jun07	305	355
Sep07	262	334
n->	929	1172

Table 14. MILITARY AFFILIATION vs. SURVEY

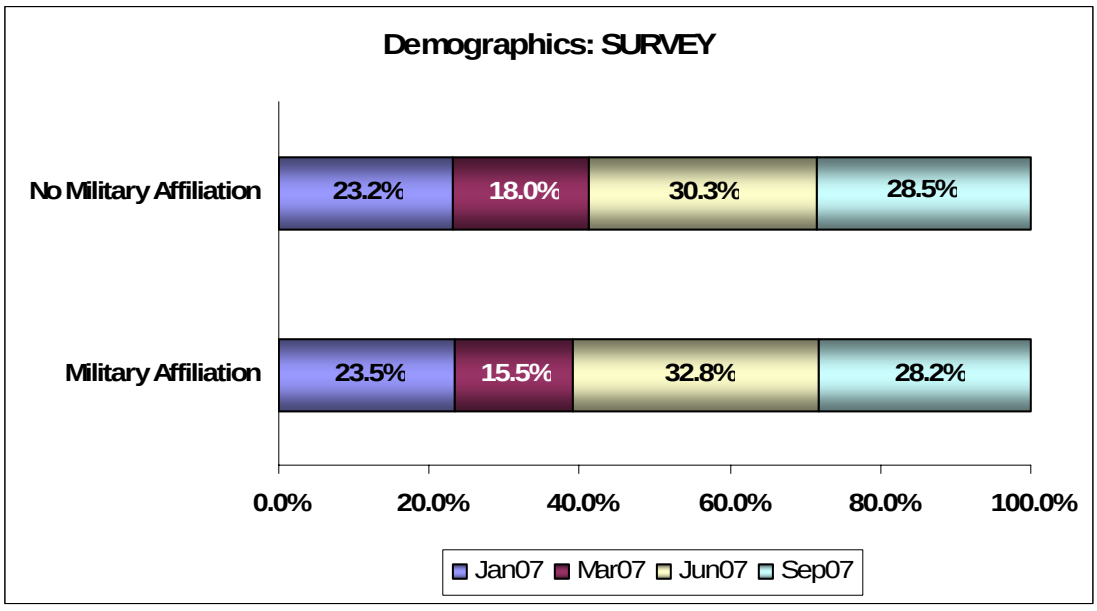

Figure 14. MILITARY AFFILIATION vs. SURVEY

4.1.14 MILITARY AFFILIATION vs. GRAD

GRAD is the dependent variable for the subsequent models. This indicates whether or not a recruit graduated from boot camp. The variable GRAD was derived as a binary flag for Graduate (1) and Attrite (0). Table 15 and Figure 15 show that GRAD statuses between MILITARY AFFILIATION were distributed close to one another. A chi-squared test between GRAD and MILITARY AFFILIATION produced a test statistic of 0.1357 resulting in a p-value of 0.7126. This p-value suggests that there is *not* a significant difference in distribution between the two variables.

GRAD	Military Affiliation	No Military Affiliation
Graduate	839	1064
Attrite	90	108
n->	929	1172

Table 15. MILITARY AFFILIATION vs. GRAD

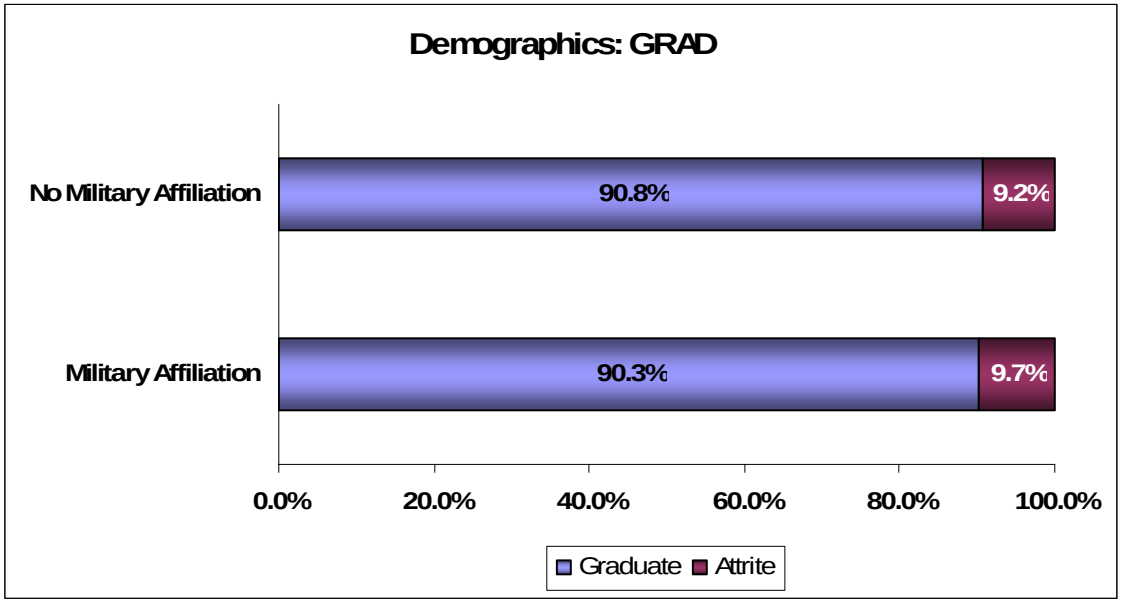

Figure 15. MILITARY AFFILIATION vs. GRAD

4.1.15 Descriptive Demographic Variables Summary

Table 16 shows the results of all the calculated p-values between MILITARY AFFILIATION and the descriptive demographic variables. Recruits' military affiliation showed no significant relationship with respect to AFQT scores, age, bonus amounts, college level, number of dependents, boot camp pay grade, race, single status, or which quarter of the year boot camp was attended. There was a higher percentage of females with military affiliation than females with no military affiliation. Females already enlist at a much lower rate than males. Therefore, being exposed to and seeing the military environment through family relationships would most likely contribute to females with military affiliation having a higher enlistment rate than females with no military affiliation. Non-U.S. citizens and Hispanics had a significantly higher percentage of no military affiliation than U.S. citizens and Hispanics with no military affiliation. Obviously, being a non-U.S. citizen would make it much more difficult to have parents in the military. Likewise, the recent influx of immigrants of Hispanic descent, would contribute to a higher percentage of no military affiliation among non-U.S. citizens and Hispanics compared to U.S. citizens and non-Hispanics with military affiliation. The southern region had significantly higher percentage of recruits with military affiliation, whereas the central, northern, and western regions had significantly higher percentage of recruits with no military affiliation. Finally, military affiliation did not appear to be associated with graduation from boot camp.

VARIABLE	p-value	VARIABLE	p-value
AFQT	0.8551	MALE	0.0899
AGE	0.3807	PAYGRADE	0.3818
BONUS	0.9596	RACE	0.3641
CITIZEN	0.0000	REGION	0.0316
COLLEGE	0.9302	SINGLE	0.5235
DEPENDENTS	0.5100	SURVEY	0.3890
HISPANIC	0.0000	GRAD	0.7126

Table 16. MILITARY AFFILIATION vs. VARIABLE p-values

4.2 MILITARY AFFILIATION SURVEY QUESTION ANALYSIS

A chi-squared test is utilized to test whether the frequency distribution of certain events observed in a sample, is consistent with a particular theoretical distribution. For the purposes of this study, the chi-squared test was used to test for independence between survey responses and military affiliation. A chi-square probability of 0.10 or less was interpreted as justification for rejecting the null hypothesis, i.e. concluding that the variables corresponding to military affiliation/no military affiliation are associated with the survey responses.

4.2.1 Individual Significance

A chi-squared test was performed on each question from the New Sailor Survey (see Appendix B: Survey Question Results). Of the 54 questions analyzed whether or not military affiliation was a significant factor in survey responses, 14 were significant with a chi-square probability of 0.10 or less.

Several of the questions that showed significance regarding military affiliation were contained in question six. Question 6 asked, “Using the scale below, please indicate the extent to which the following factors have influenced you (contributed to your decision) to join the Navy.” Twenty-four factors were presented utilizing a Likert scale ranging from “Very great extent” to “Not at all.”

Three obvious factors showed military affiliation to have a positive association with a recruit’s decision to join. They were contained in Questions 6f (Figure 16), 6g (Figure 17), and 6h (Figure 18), which corresponded to the factors, “Always wanted to be in the Navy,” “Military tradition in my family,” and “Parents encouraged me to join,” respectively. Individual chi-squared tests between MILITARY AFFILIATION and Questions 6f, 6g, and 6h resulted in the respective p-values of 0.0002, 0.0000, and 0.0000. These p-values suggest that military affiliation influenced the recruit’s decision to join.

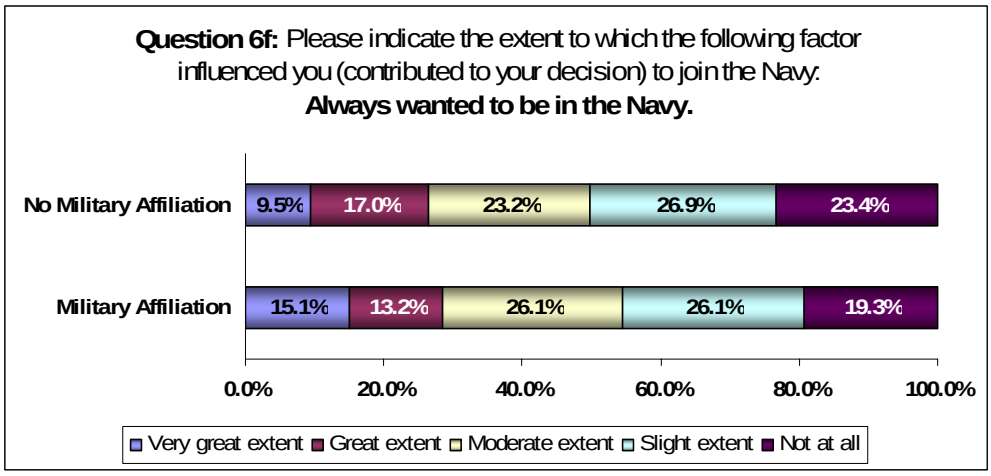

Figure 16. MILITARY AFFILIATION vs. Question 6f

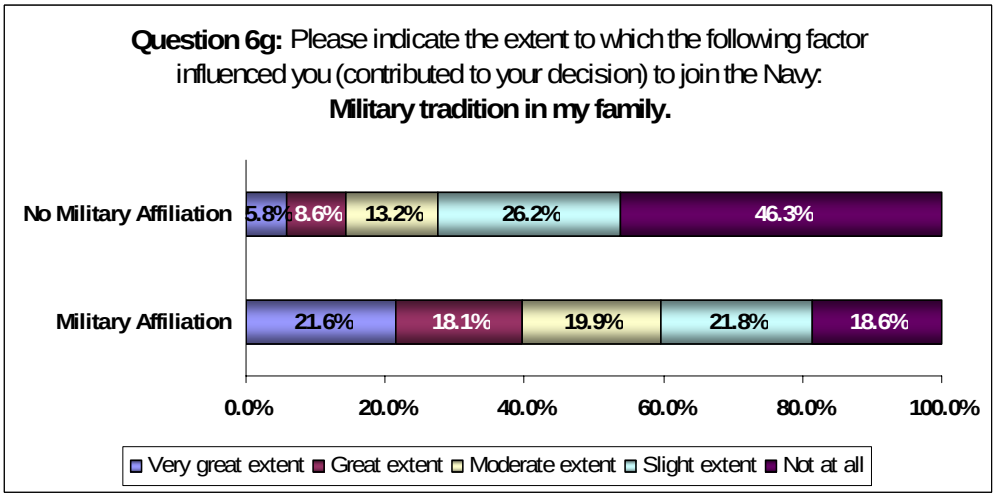

Figure 17. MILITARY AFFILIATION vs. Question 6g

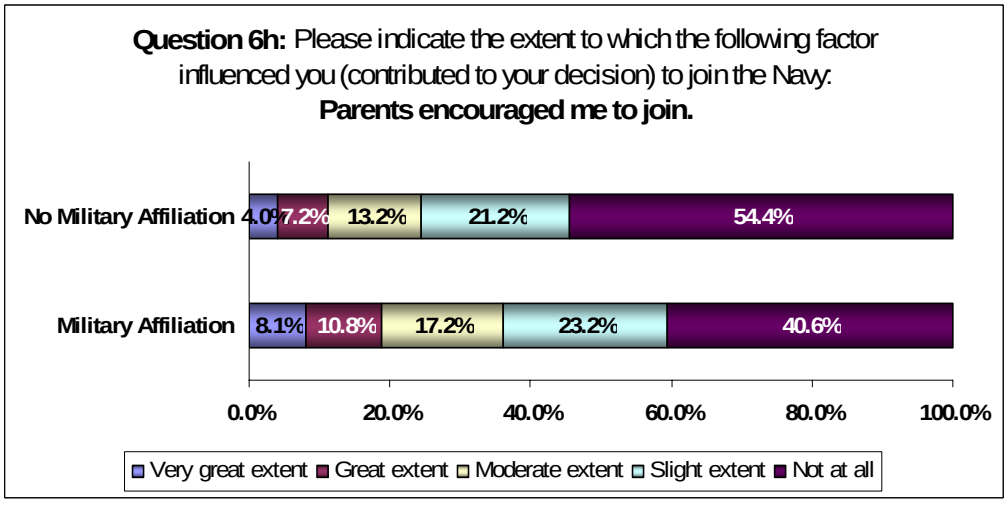

Figure 18. MILITARY AFFILIATION vs. Question 6h

Benefits were other factors that showed military affiliation to have a positive association with a recruit's decision to join. The Questions 6l (Figure 19), 6m (Figure 20), and 6n (Figure 21) corresponded to benefit factors, "Medical/Dental benefits," "Family benefits," and "Retirement pay and benefits," respectively. Individual chi-squared tests between MILITARY AFFILIATION and Questions 6l, 6m, and 6n resulted in the respective p-values of 0.0987, 0.0714, and 0.0359. These p-values suggest that military affiliation influenced the recruit's decision to join.

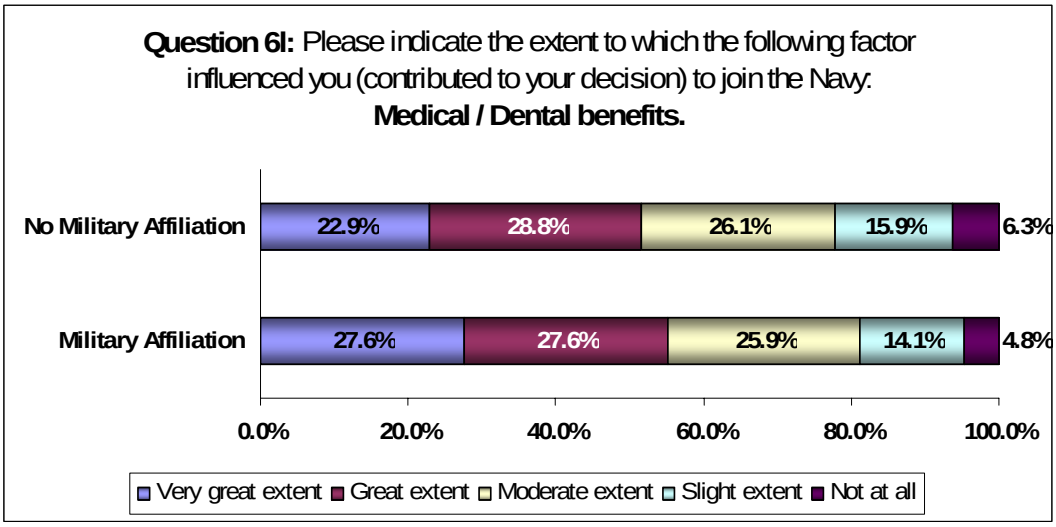

Figure 19. MILITARY AFFILIATION vs. Question 6l

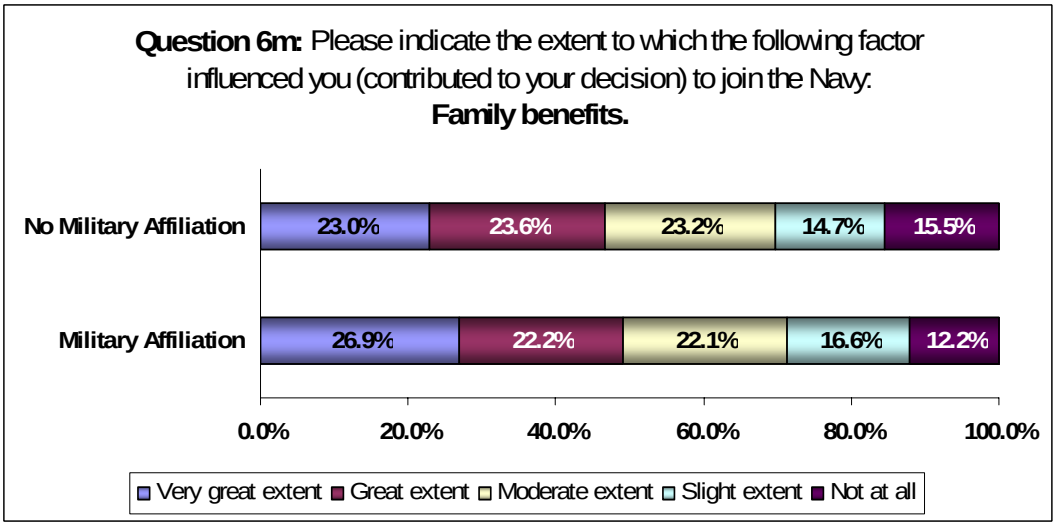

Figure 20. MILITARY AFFILIATION vs. Question 6m

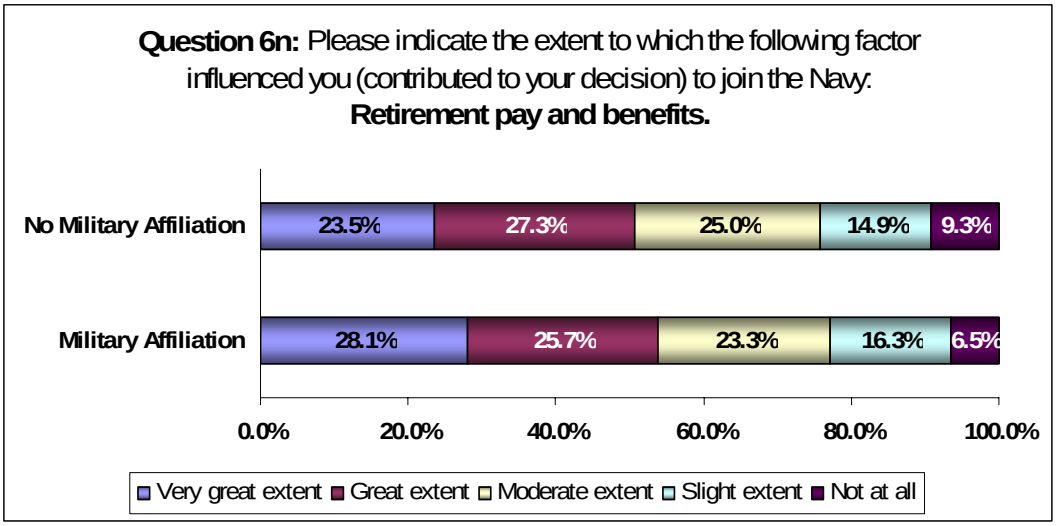

Figure 21. MILITARY AFFILIATION vs. Question 6n

Lastly, security and training were two factors that showed military affiliation to have a positive association with a recruit's decision to join. They were contained in two Questions, 6o (Figure 22) and 6v (Figure 23), which corresponded to the factors, "Security and stability of a Navy job" and "Training in skills useful for civilian employment." Individual chi-squared tests between MILITARY AFFILIATION and Questions 6o and 6v resulted in p-values of 0.0304 and 0.0485, respectively. These p-values suggest that military affiliation influenced the recruit's decision to join.

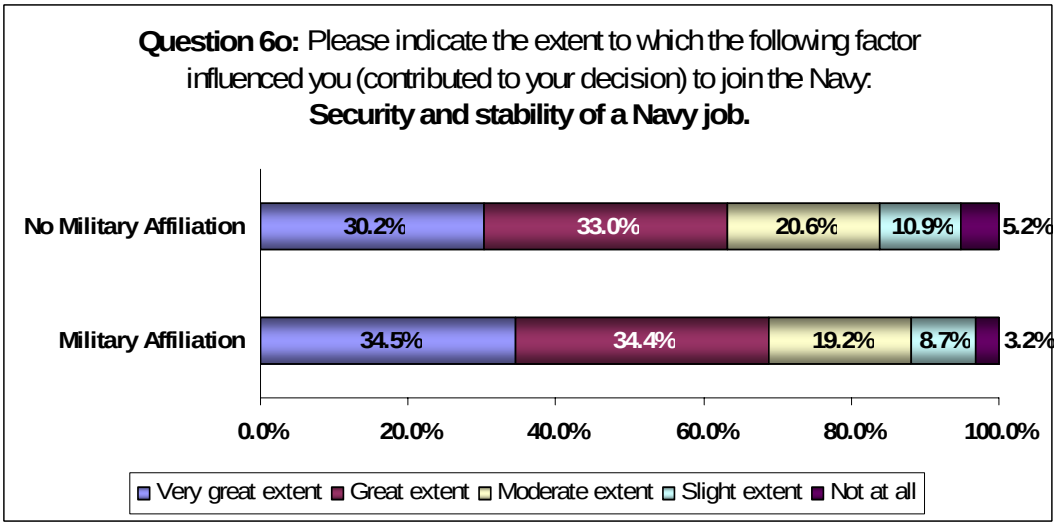

Figure 22. MILITARY AFFILIATION vs. Question 6o

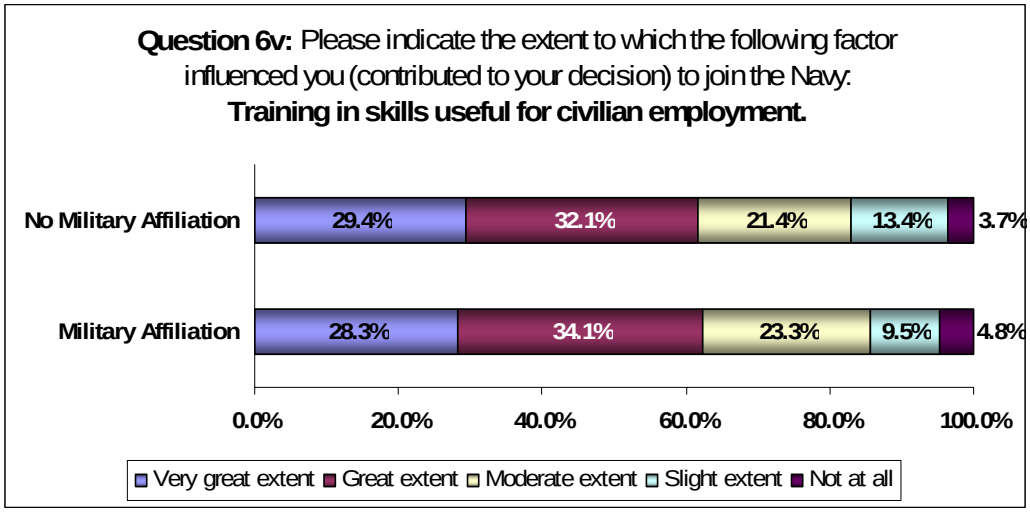

Figure 23. MILITARY AFFILIATION vs. Question 6v

The desire to meet and frequency of meetings between a recruit and his or her recruiter while in the DEP was also significant. Question 3 (Figure 24) asked, "Was the number of DEP meetings: not applicable, too few, about right, or too many." Question 8 (Figure 25) asked, "On average, how many times did you meet with your recruiter while in the DEP?" A recruit with military affiliation tended to not only meet more often, but wanted to meet more often. A chi-squared test between MILITARY AFFILIATION and Question 3 and Question 8 resulted in p-values of 0.0917 and 0.0421, respectively. These p-values suggest that military affiliation had an effect on the desire to meet and frequency of meetings between a recruit and his or her recruiter while in the DEP.

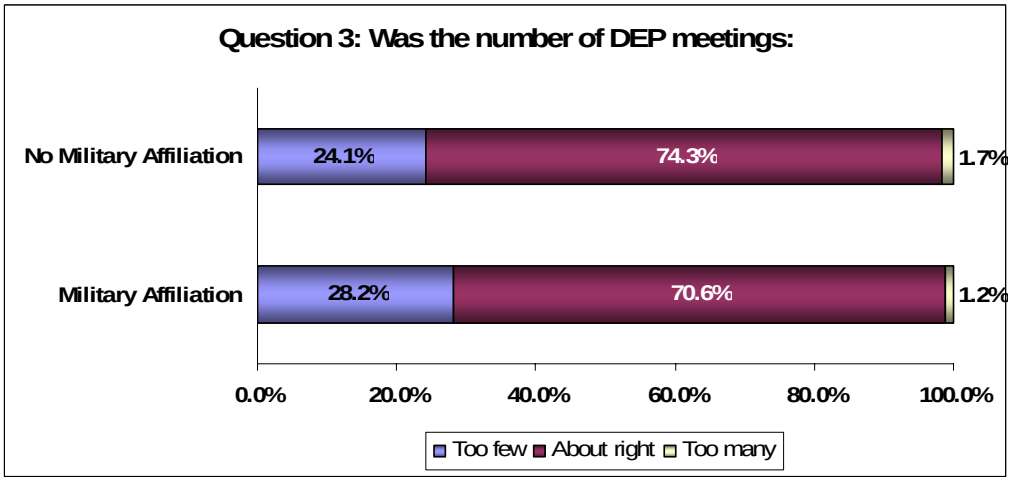

Figure 24. MILITARY AFFILIATION vs. Question 3

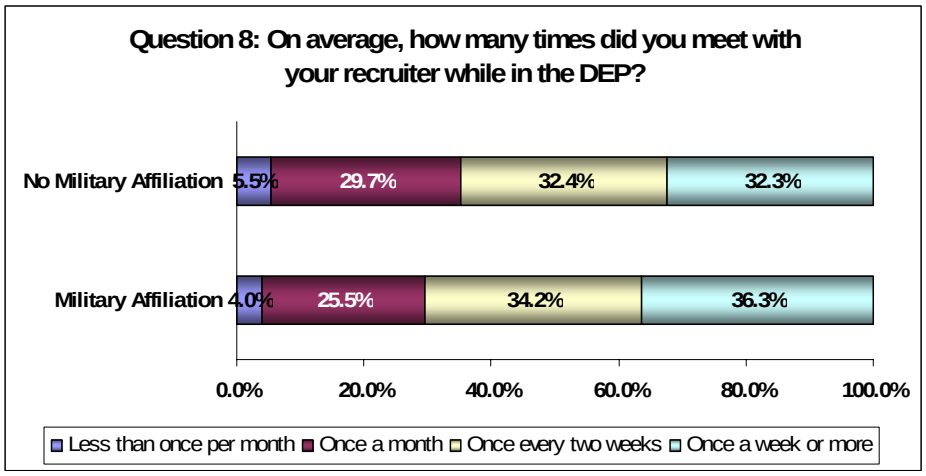

Figure 25. MILITARY AFFILIATION vs. Question 8

Question 11e (Figure 26) asked, "To what extent was each of the following explained to you? The job you were assigned at classification." The respondent was given the response options of a Likert scale identical to Question 6. The results were ambiguous: No Military Affiliation had a higher response rate for "Very great extent" (22.1 percent) versus Military Affiliation (20.9 percent). On the other hand, Military Affiliation had a higher response rate for "Great extent" (33.3 percent) versus No Military Affiliation (28.1 percent). Irrespective of gradation of the responses, a chi-squared test between MILITARY AFFILIATION and Question 11e resulted in a p-value of 0.0652. That suggests that military affiliation had an association with which job was assigned at classification and how it was explained to the recruit.

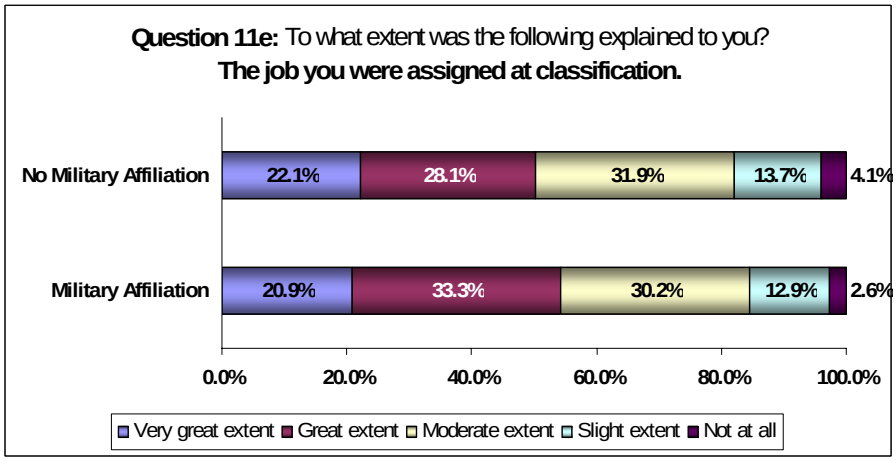

Figure 26. MILITARY AFFILIATION vs. Question 11e

Question 16 asked, “Please use the scale below to show how much you AGREE or DISAGREE with each of the following statements concerning your current enlistment.” Nine statements were presented utilizing a five-point Likert scale ranging from “Strongly agree” to “Strongly disagree.” Two statements showed that recruits with military affiliation had a greater inclination to agree positively in regard to their current enlistment. These statements, in Questions 16g (Figure 27) and 6h (Figure 28), corresponded to, “My recruiter made me feel comfortable enough to ask questions” and “I would recommend the Navy to a friend/family member,” respectively. Individual chi-squared tests between MILITARY AFFILIATION and Questions 16g and 6h resulted in the respective p-values of 0.0237 and 0.0082. These p-values suggest that recruits with military affiliation were more comfortable asking their respective recruiters questions and more likely to recommend the Navy to others.

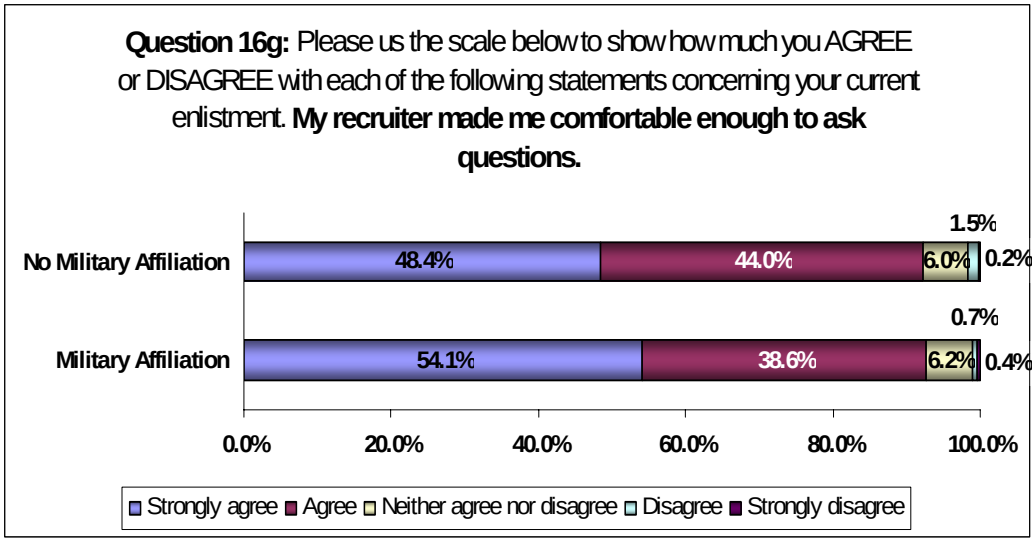

Figure 27. MILITARY AFFILIATION vs. Question 16g

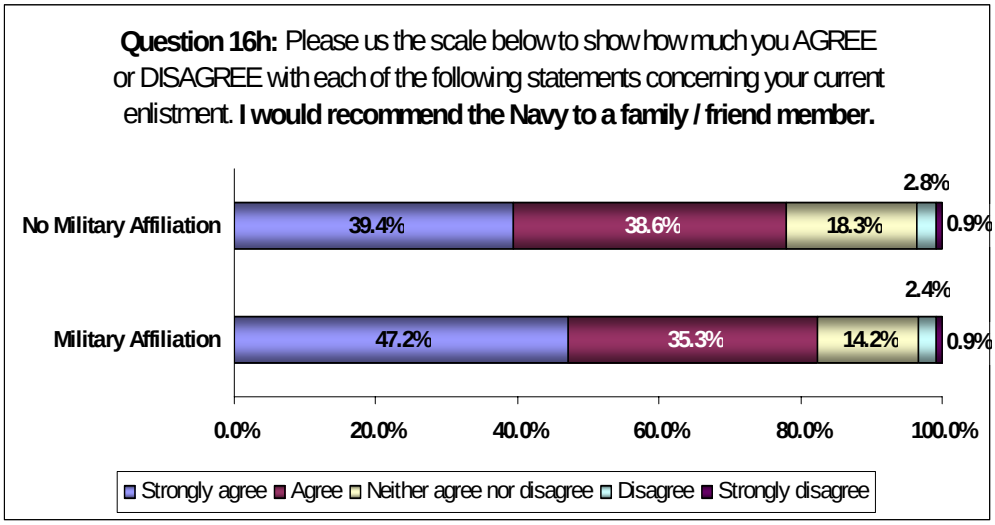

Figure 28. MILITARY AFFILIATION vs. Question 16h

Finally, Question 19 (Figure 29) asked, "Did your recruiter meet with your parent(s)?" The results showed that recruits with military affiliation were more likely to have their recruiters meet their parents (86.0 percent versus 82.8 percent.) Further, the results showed that recruits with military affiliation had a higher propensity to have their recruiters meet with their parents more than once (54.7 percent versus 46.4 percent.) A chi-squared test between MILITARY AFFILIATION and Question 19 resulted in a p-value of 0.0033. That suggests that military affiliation had an effect on whether or not a recruiter would meet a recruit's parents once, or more than once.

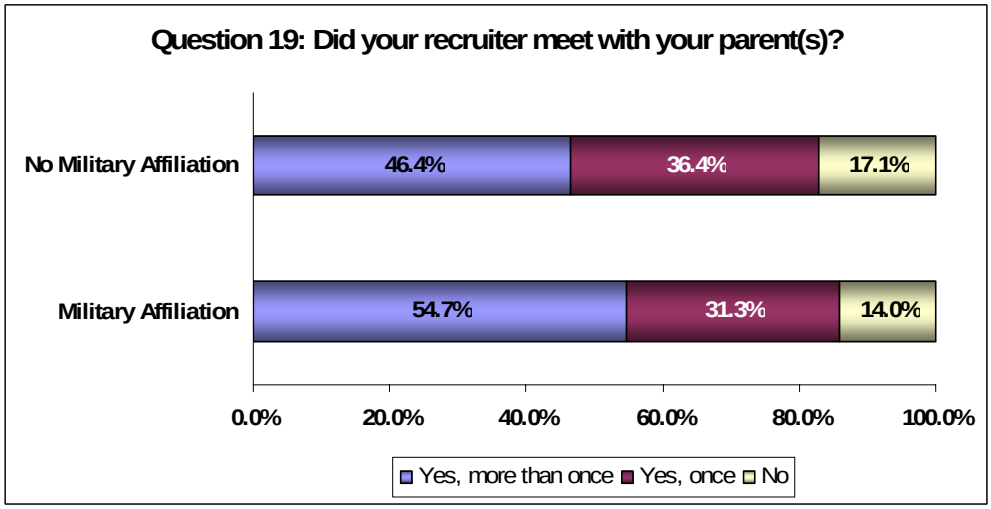

Figure 29. MILITARY AFFILIATION vs. Question 19

4.2.2 Individual Significance Summary

In fourteen of the 54 individual questions analyzed in the New Sailor Survey, the response was associated with military affiliation. The obvious factors of always wanting to be in the Navy, military tradition in the family, and parents' encouragement to join were all associated with military affiliation. Likewise, benefits, security, and training also showed to be stronger influencing forces to join for recruits with military affiliation than for those without. This could be attributed to greater awareness and anecdotal information to which a recruit with military affiliation would be privy. The desire to meet and the frequency with which a recruit met with his or her recruiter while in the DEP tended to be higher for those with military affiliation. This could be attributed to the anticipation, desire, and level of comfort a recruit with military affiliation might have because of his or her situation. Military affiliation appeared to play a role in which jobs they were assigned at classification and how it was explained to them. The results, however, were less intuitive to interpret. This could be because recruits with military affiliation had a better comprehension and understanding of the available jobs and their descriptions. Thus, greater explanations were not required. Recruits with military affiliation felt more comfortable asking their recruiter questions and were more willing to recommend the Navy to others. This could be because a recruit with military affiliation has a situational level of comfort as well as a greater understanding of the military environment. Finally, parents were more likely to see their son or daughter's recruiter once, or more than once, if military affiliation was part of the family. In addition to the contributing factors already mentioned, this could be attributed to parents' desire to extend fellowship to the military community because they already belonged.

4.2.3 Comprehensive Significance

The previous analysis showed that military affiliation was associated with the response to 14 of 54 individual survey questions. On the other hand, 40 individual survey questions did not show that military affiliation had an effect.

The question remains: can military affiliation, as a whole, be attributed to having an effect on survey responses? Table 17 shows the results of all calculated p-values.

Question	p-value	Question	p-value	Question	p-value	Question	p-value
1	0.4042	6j	0.1756	6x	0.2586	16a	0.4187
2	0.7893	6k	0.3295	7	0.2488	16b	0.1947
3	0.0917	6l	0.0987	8	0.0421	16c	0.1656
4	0.5466	6m	0.0714	9	0.8328	16d	0.5675
5	0.3600	6n	0.0359	10	0.6903	16e	0.5132
6a	0.2846	6o	0.0304	11a	0.5537	16f	0.6213
6b	0.8939	6p	0.4273	11b	0.9333	16g	0.0237
6c	0.8661	6q	0.2947	11c	0.5482	16h	0.0082
6d	0.9639	6r	0.5951	11d	0.2013	16i	0.2203
6e	0.4309	6s	0.2531	11e	0.0652	17	0.4238
6f	0.0002	6t	0.4417	11f	0.2779	18	0.7337
6g	0.0000	6u	0.8725	12	0.5062	19	0.0033
6h	0.0000	6v	0.0485	13	0.5775		
6i	0.7041	6w	0.1464	14	0.4197		

Table 17. MILITARY AFFILIATION vs. Question p-values

Consider the 40 non-significant p-values from Table 17 (p-values < 0.10.) Figure 30 shows a histogram plot of the resulting p-values divided into five bins: 0 to 0.2, 0.2 to 0.4, 0.4 to 0.6, 0.6 to 0.8, and 0.8 to 1.

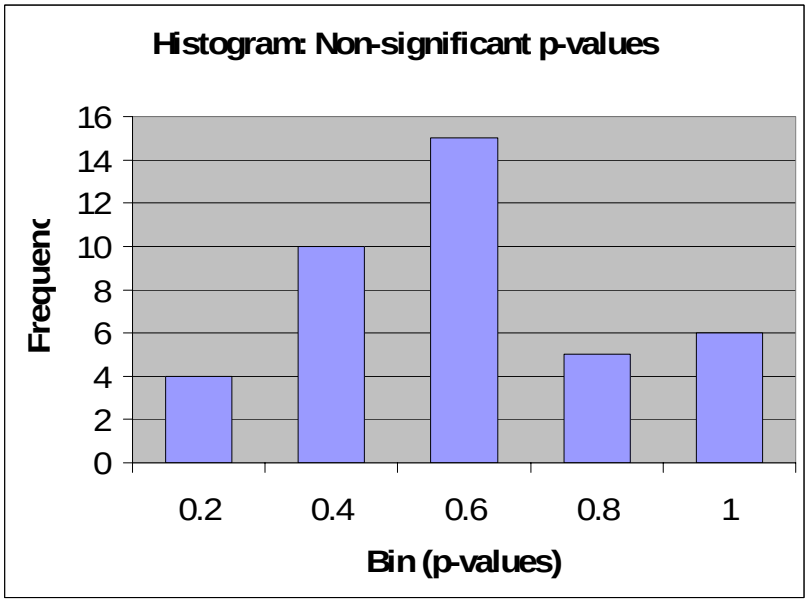

Figure 30. Histogram: Non-significant p-values

Now, consider the 40 corresponding non-significant questions. Under the 40 simultaneous null hypotheses, the p-values should be uniform (on 0.1 to 1). Figure 30, however, suggests that the corresponding non-significant p-values are *not* uniform (on 0.1 to 1). This in turn suggests that military affiliation is having some type of an effect on recruits' survey responses. In spite of this, it is difficult to draw definitive conclusions. While some individual questions show significance, it is not enough for the survey to state with certainty that military affiliation has a direct affect on a recruit's survey responses. To do so, further data collection and analysis is necessary. Albeit there is no clear verdict, the data analyzed does suggest that military affiliation might have an effect on a recruit's survey responses.

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5. STATISTICS AND MODEL

For the purposes of this study, a recruit was considered successful if he or she graduated from boot camp. Section 5.1 of this Chapter presents graduation rates of each descriptive demographic variable with respect to military affiliation and overall. Section 5.2 presents the results of a logistic regression model.

5.1 VARIABLES AND STATISTICS

5.1.1 Descriptive Demographic Variables

The logistic model presented targets the binomially distributed dependent variable GRAD. Before logistic regression modeling could be attempted, several data fields were modified according to Section 4.1. Table 18 presents the final list of descriptive demographic regressors -- all of which were tested in the models prior to any elimination. Data descriptions for these variables, as described in Section 4.1 and their respective levels, are shown in Table 19.

VARIABLE	TYPE	LEVELS
AFQT	Set	4
AGE	Set	3
BONUS	Set	3
CITIZEN	Flag	2
COLLEGE	Flag	2
DEPENDENTS	Flag	2
GRAD	Flag	2
HISPANIC	Flag	2
MALE	Flag	2
MILITARY AFFILIATION	Flag	2
PAYGRADE	Flag	2
RACE	Set	4
REGION	Set	4
SINGLE	Flag	2
SURVEY	Set	4

Table 18. List of Descriptive Demographic Variables

VARIABLE	DESCRIPTION
AFQT	
I	93-99
II	65-92
IIIA	50-64
IIIB	31-49
AGE	
17-18	17 to 18 years old
19-20	19 to 20 years old
>=21	21 years or older
BONUS	
0-550	Zero to $550
3-12K	$3,000 to $12,000
15-40K	$15,000 to $40,000
CITIZEN	1 if US citizen, 0 otherwise
COLLEGE	1 if some college attended, 0 otherwise
DEPENDENTS	1 if one or more dependents, 0 otherwise
GRAD	1 if graduated from boot camp, 0 otherwise
HISPANIC	1 if Hispanic, 0 otherwise
MALE	1 if male, 0 otherwise
MILITARY AFFILIATION	1 if recruit has military affiliation, 0 otherwise
PAYGRADE	1 if entered boot camp greater than E-1, 0 otherwise
RACE	
W	White
B	Black
APINA	Asian Pacific Islander or Native American
O	Other
REGION	
Central	NRDs Chicago, Minneapolis, Dallas, Houston, St. Louis, and San Antonio
North	NRDs New England, New York, Ohio, Philadelphia, Pittsburgh, and Michigan
South	NRDs Jacksonville, Atlanta, Nashville, Raleigh, Richmond, New Orleans, and Miami
West	NRDs Denver, Phoenix, Los Angeles, Portland, San Francisco, Seattle, and San Diego
SINGLE	1 if single, 0 otherwise
SURVEY	
Jan07	Recruit administered survey in Janurary 2007
Mar07	Recruit administered survey in March 2007
Jun07	Recruit administered survey in June 2007
Sep07	Recruit administered survey in September 2007

Table 19. Variable Descriptions

5.1.2 Descriptive Statistics

Table 20 presents a detailed list of the descriptive statistics for all levels of the regressor variables with respect to military affiliation -- and as a whole. The two subcategories, whose members had graduation rates greater than 95 percent, are highlighted in bold print. Those with military affiliation, who received a bonus between $15,000 and $40,000, were the most successful group with a graduation rate of 97.62 percent. Interestingly, the second most successful group with a graduation rate of 95.65 percent, are those with military affiliation and with one or more dependents. The four subcategories whose members had graduation rates lower than 85 percent are highlighted in bold print as well.

Those with no military affiliation who were non-single were the least successful group with a graduation rate of 82.61 percent. This caused the overall graduation rate of those not single to be 84.44 percent. A graduation rate of 84.43 percent was observed for the second-least successful group whose members are without military affiliation and female. This caused the overall graduation rate of females to be 84.80 percent.

	n = 929		n = 1172		n = 2101	
Variable	**Percent MA ***	**Grad Rate MA ****	**Percent No MA ***	**Grad Rate No MA ****	**Percent Total**	**Grad Rate Total ****
AFQT						
I	7.32%	94.12%	6.48%	89.47%	6.85%	91.67%
II	40.26%	91.98%	40.70%	90.78%	40.50%	91.30%
IIIA	27.23%	87.35%	26.71%	92.97%	26.94%	90.46%
IIIB	25.19%	89.74%	26.11%	88.89%	25.70%	89.26%
AGE						
17-18	25.86%	91.67%	28.58%	91.04%	27.38%	91.30%
19-20	36.31%	90.80%	34.90%	91.93%	35.52%	91.42%
>=21	37.82%	88.89%	36.52%	89.49%	37.10%	89.22%
BONUS						
0-550	43.16%	88.78%	42.58%	91.18%	42.84%	90.11%
3-12K	43.27%	89.55%	43.86%	89.88%	43.60%	89.74%
15-40K	13.56%	**97.62%**	13.57%	92.45%	13.56%	94.74%
CITIZEN						
0	2.15%	90.00%	7.17%	94.05%	4.95%	93.27%
1	97.85%	90.32%	92.83%	90.53%	95.05%	90.44%
COLLEGE						
0	91.07%	90.43%	90.96%	90.71%	91.00%	90.59%
1	8.93%	89.16%	9.04%	91.51%	9.00%	90.48%
DEPENDENTS						
0	97.52%	90.18%	97.95%	90.85%	97.76%	90.56%
1	2.48%	**95.65%**	2.05%	87.50%	2.24%	91.49%
HISPANIC						
0	85.68%	90.20%	77.99%	90.81%	81.39%	90.53%
1	14.32%	90.98%	22.01%	90.70%	18.61%	90.79%
MALE						
0	24.00%	85.20%	20.82%	**84.43%**	22.23%	**84.80%**
1	76.00%	91.93%	79.18%	92.46%	77.77%	92.23%
PAYGRADE						
0	87.94%	90.09%	89.16%	90.62%	88.62%	90.39%
1	12.06%	91.96%	10.84%	92.13%	11.38%	92.05%
RACE						
W	59.63%	91.34%	61.01%	90.77%	60.40%	91.02%
B	16.90%	85.35%	17.15%	88.56%	17.04%	87.15%
APINA	15.07%	92.86%	15.36%	92.78%	15.23%	92.81%
O	8.40%	88.46%	6.48%	92.11%	7.33%	90.26%
REGION						
Central	15.82%	90.48%	17.08%	87.00%	16.52%	88.47%
North	23.57%	90.41%	26.64%	91.99%	25.29%	91.34%
South	32.83%	90.16%	26.99%	90.51%	29.57%	90.34%
West	27.77%	90.31%	29.29%	92.13%	28.62%	91.35%
SINGLE						
0	2.37%	86.36%	1.96%	**82.61%**	2.14%	**84.44%**
1	97.63%	90.41%	98.04%	90.95%	97.86%	90.71%
SURVEY						
Jan07	23.47%	89.91%	23.21%	91.54%	23.32%	90.82%
Mar07	15.50%	86.81%	18.00%	91.00%	16.90%	89.30%
Jun07	32.83%	91.48%	30.29%	88.45%	31.41%	89.85%
Sep07	28.20%	91.22%	28.50%	92.51%	28.37%	91.95%

* MA = Military Affiliation ** Grad Rate Percentages below 85% and above 95% are in shaded and in bold

Table 20. Descriptive Statistics of Variables

5.1.3 Survey Variables

As mentioned, the logistic model to be presented targets the binomially distributed dependent variable GRAD. Table 21 presents the final list of survey regressors. They were tested in the models. Descriptions for the variables are the question themselves. Levels correspond to possible responses (see Appendix A: New Sailor Survey Instrument). For example, survey variable Question 1's description would be the question itself, "How long were you in the Delayed Entry Program (DEP)?" Question 1's levels would correspond to the 5 possible responses, "0-1 months, 2-3 months, 4-6 months, 7-9 months, and 10 or more months."

VARIABLE	TYPE	LEVELS	VARIABLE	TYPE	LEVELS
Question 1	Set	5	Question 10	Set	5
Question 2	Set	3	Questions 11a-11f	Set	5
Question 3	Set	3	Question 12	Set	3
Question 4	Set	5	Question 13	Set	4
Question 5	Set	3	Question 14	Set	4
Questions 6a-6x	Set	5	Questions 16a-16i	Set	5
Question 7	Set	5	Question 17	Set	5
Question 8	Set	4	Question 18	Set	5
Question 9	Set	3	Question 19	Set	3

Table 21. List of Survey Variables

5.2 LOGISTIC MODEL

5.2.1 Base Model

Backward-stepwise regression was used to create the best base model in predicting graduation of recruits from boot camp. The process began with all 14 of the descriptive demographic terms in the model. From these, insignificant variables were iteratively eliminated. BONUS and MALE were the only predictors kept. The remaining 12 regressors were removed. This resulted in the following base model: GRAD ~ BONUS + MALE.

5.2.2 Survey Model

Once the base model was established, utilizing the demographic descriptive variables, the survey questions were examined. It was common that

recruit did not respond to all survey questions. Therefore, the S-plus function, “addterm.glm,” was modified to account for missing survey data. Utilizing the base model, GRAD ~ BONUS + MALE, the “addterm.glm” function searched through all the survey questions and determined if, and which ones, would positively contribute to the model. The best survey question was selected and added to update the base model. Then, the process repeated itself. Four survey questions/variables were added to the model:

1. Question 3: “Was the number of DEP meetings: Not applicable, Too few, About right, or Too many?”
2. Question 10: “How satisfied were you with the amount of time you spent with your classifier?: Not applicable, Very satisfied, Satisfied, Neither satisfied nor dissatisfied, Dissatisfied, or Very dissatisfied.”
3. Question 13: “What progress did you make on the DEP Personal Qualification Standards (PQS)?: I completed PQS, I only finished part of PQS, I did not complete any of PQS, or I have never heard of PQS.”
4. Question 17: “The preparation for RTC that I received from my recruiter was: Not applicable, Excellent, Good, Satisfactory, Fair, or Poor.”

The following survey model resulted: GRAD ~ BONUS + MALE + q3 + q10 + q13 + q17 (i.e., “q3” is Question 3; “q10” is Question 10, etc.,). Further analysis revealed that interactions were present.

5.2.3 Interactions Model

A complete exploratory analysis of all the possible interactions concluded that survey variables q3 and q13 were no longer significant in the model when interactions were introduced. This resulted in the following model with two and three-way interactions: GRAD ~ BONUS + MALE + q10 + q17 + BONUS:MALE + BONUS:q10 + MALE:q10 + BONUS:q17 + MALE:q17 + BONUS:MALE:q10 +

BONUS:MALE:q17 (terms separated by ":" indicate interactions). Table 22 shows the analysis of deviance table for the model.

	Df	Deviance	Resid. Df	Resid. Dev	Pr(Chi)
NULL			1676	1001.091	
BONUS	2	6.53075	1674	994.56	0.0381827
MALE	1	19.47955	1673	975.081	0.0000102
q10	4	6.75388	1669	968.327	0.1494805
q17	4	2.29144	1665	965.405	0.5710565
BONUS:MALE	2	5.19941	1663	960.206	0.0742955
BONUS:q10	8	15.39099	1655	944.815	0.0519742
MALE:q10	4	16.25945	1651	928.556	0.0026901
BONUS:q17	8	14.92766	1643	913.628	0.0605674
MALE:q17	4	1.71111	1639	911.917	0.7886985
BONUS:MALE:q10	7	16.55854	1632	895.358	**0.0204756**
BONUS:MALE:q17	8	20.29516	1624	875.063	**0.0092752**

Table 22. Analysis of Deviance Table with 3-way Interactions

In the bottom-right of Table 22 are the p-values for the three-way interactions highlighted in bold print. BONUS:MALE:q10 and BONUS:MALE:q17 are both significant in the model with p-values of 0.0205 and 0.0093, respectively.

5.2.4 Final Model

Hosmer-Lemeshow's test for logistic regression was used as a goodness of fit test for the logistic model. In essence, the Hosmer-Lemeshow test sorts the predicted probabilities of GRAD from smallest to largest. Those probabilities are divided into groups (e.g. 10 groups of approximately equal size). This results in one group having the lowest 10 percent of predicted probabilities, and so on. Within each group, the proportion of recruits who actually graduated, and the average predicted probability, are computed. If the model is good, then those pairs will be close to one another. The Hosmer-Lemeshow test gives us a chi-squared test where the null hypothesis is "The model fits okay."

When the Hosmer-Lemeshow test is applied to the two and three-way interactions model, GRAD ~ BONUS + MALE + q10 + q17 + BONUS:MALE + BONUS:q10 + MALE:q10 + BONUS:q17 + MALE:q17 + BONUS:MALE:q10 + BONUS:MALE:q17, it results in a significant p-value of 0.9843. That suggests the

model is fitting extremely well -- perhaps, too well. Figure 31 shows the Hosmer-Lemeshow observed versus expected plot of the interactions model. Note how well it fits along the line y=x.

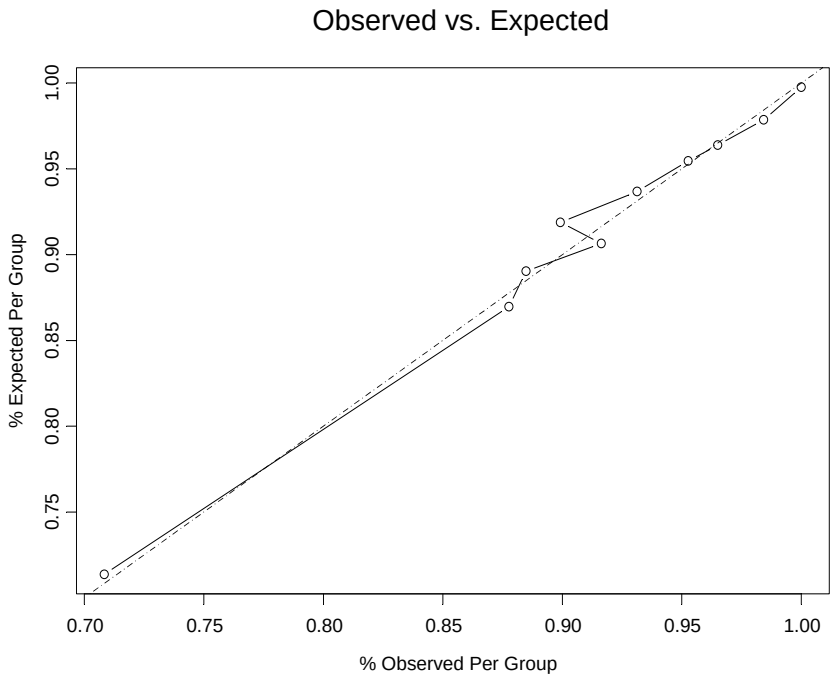

Figure 31. Hosmer-Lemeshow Observed vs. Expected Interactions Model Plot

In addition, a careful look at the coefficients of the two and three-way interactions' model reveals 18 coefficients with values ranging from 13.62 to 41.58. The large logit coefficients in the two and three-way interactions model suggest that it is over-fitting.

Further analysis was needed to determine the best model. If the three-way interactions remained, the model was over-fitting. When all the possible two-way interactions were included, the model did not fit nearly as well. Therefore, the final model excluded three-way interactions, but included the two-way interactions of the demographic variables, BONUS and MALE, with the two survey questions, q10 and q17. The following is the final model: GRAD ~ BONUS + MALE + q10 + q17 + BONUS:q10 + MALE: q10 + BONUS:q17 + MALE:q17. In this case, only one coefficient was larger than three in absolute value. Applying

the Hosmer-Lemeshow test to the final model resulted in a p-value of 0.9118. This indicates that the model fits well. Figure 32 shows the Hosmer-Lemeshow observed versus expected plot of the final model fitting closely along the line y=x.

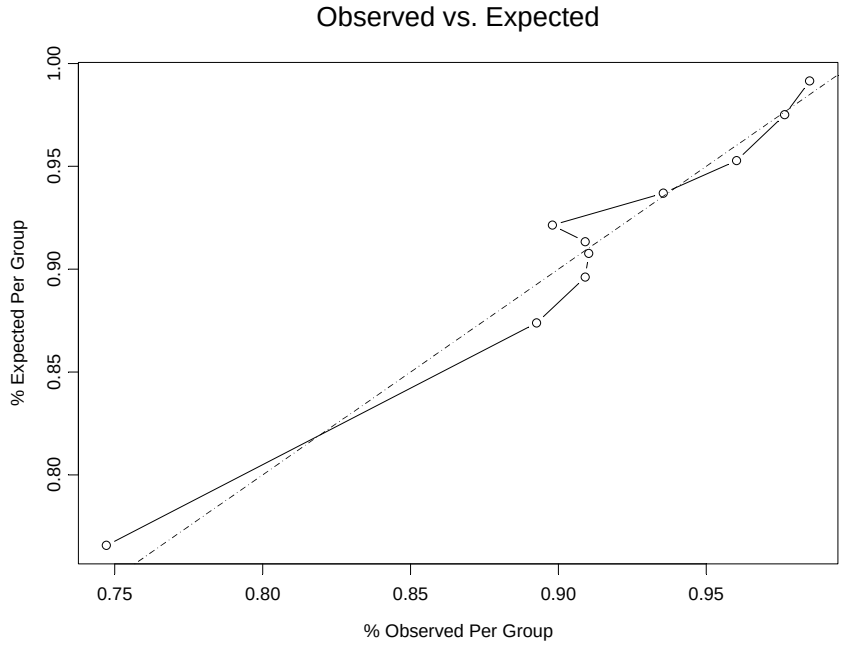

Figure 32. Hosmer-Lemeshow Observed vs. Expected Final Model Plot

Table 23 shows the analysis of deviance table for the model. Because the three-way interactions model was trimmed to the final model with two-way interactions, q17 appears not to be as significant. The remaining variables clearly show significance.

	Df	Deviance	Resid. Df	Resid. Dev	Pr(Chi)
NULL			1676	1001.091	
BONUS	2	06.531	1674	994.560	0.03818
MALE	1	19.480	1673	975.081	0.00001
q10	4	06.754	1669	968.327	0.14948
q17	4	02.291	1665	965.405	0.57106
BONUS:q10	8	13.917	1557	951.488	0.08394
MALE:q10	4	17.478	1653	934.010	0.00156
BONUS:q17	8	13.996	1645	920.014	0.08187
MALE:q17	4	01.265	1641	918.749	0.86732

Table 23. Analysis of Deviance Table with 2-way Interactions

5.2.5 Final Model Logit Coefficients

The coefficients for the single variables in the final model, as listed in Table 24, are positive where their associated success probabilities are greater than the base case. For example, recruits who received a bonus amount between $15,000 and $40,000 have log odds 0.9578 higher than the log odds of those who received no bonus. This means that they have increased "odds of success" of exp(0.9578), or 2.6060 times better odds of graduating from boot camp. Bonus amounts between $3,000 and $12,000 predicted slightly lower odds than not having any bonus. Males were also shown to have a higher rate of success graduating boot camp than females. The logit coefficients for q10, however, are less than intuitive. In the final model, surprisingly, a recruit dissatisfied with the amount of time spent with the classifier was actually a more positive predictor of success than being (very) satisfied. More intuitively, q17 showed that, in general, the more positive recruits felt about the preparation they received from their recruiter for RTC, the more successful they were graduating boot camp

Variable	Logit Coefficient
BONUS=15-40K	0.9578
BONUS=3-12K	-0.1743
BONUS=0-550	BASE
MALE	1.3174
MALE=0	BASE

Variable	Logit Coefficient
q10=VerySatisfied	0.6707
q10=Satisfied	1.3270
q10=Neither	1.4136
q10=Dissatisfied	BASE
q10=VeryDissatisfied	1.6351

Variable	Logit Coefficient
q17=Excellent	BASE
q17=Good	-0.6172
q17=Satisfactory	-0.5390
q17=Fair	-1.1725
q17=Poor	-2.0856

Table 24. Logit Coefficients for Single Variables

The coefficients for the interaction variables in the final model are listed in Table 25. The final model resulted in only one abnormal logit coefficient, 10.5944, which was the interaction between variables BONUS=15-40K and q10=VerySatisfied. The high predicted "odds of success" is due to the 100 percent graduation rate from boot camp for recruits who received a bonus amount between $15,000 and $40,000 and also answered "Very Satisfied" to how satisfied they were with the amount of time spent with their classifier. Interactions with q10 (satisfaction with the amount of time spent with the

classifier) tended to decrease the predicted “odds of success” for recruits graduating from boot camp. On the other hand, interactions with q17 (preparation for RTC from recruiter) tended to increase the predicted “odds of success” for recruits graduating from boot camp.

Interaction Variable	Logit Coefficient
BONUS=15-40K : q10=VerySatisfied	**10.5944**
BONUS=15-40K : q10=Satisfied	-1.6604
BONUS=15-40K : q10=Neither	-2.6022
BONUS=15-40K : q10=VeryDissatisfied	-1.8134
BONUS=3-12K : q10=VerySatisfied	-0.4120
BONUS=3-12K : q10=Satisfied	-0.6289
BONUS=3-12K : q10=Neither	-1.8839
BONUS=3-12K : q10=VeryDissatisfied	-2.0385
MALE : q10=VerySatisfied	-0.8048
MALE : q10=Satisfied	-1.3454
MALE : q10=Neither	0.5291
MALE : q10=VeryDissatisfied	-1.2081

Interaction Variable	Logit Coefficient
BONUS=15-40K : q17=Good	1.5731
BONUS=15-40K : q17=Satisfactory	2.0026
BONUS=15-40K : q17=Fair	1.3268
BONUS=15-40K : q17=Poor	-0.2244
BONUS=3-12K : q17=Good	0.9654
BONUS=3-12K : q17=Satisfactory	0.6888
BONUS=3-12K : q17=Fair	1.2086
BONUS=3-12K : q17=Poor	2.7010
MALE : q17=Good	0.0597
MALE : q17=Satisfactory	0.2798
MALE : q17=Fair	0.2112
MALE : q17=Poor	0.9661

Table 25. Logit Coefficients for Interaction Variables

For proper interpretation, the interaction variables logit coefficients and their corresponding single variable logit coefficients must be analyzed together. Consider the logit coefficients for q17 and MALE:q17 as depicted in Table 26. The single variable logit coefficients for q17 show that, in general, the more negative recruits felt about the preparation for RTC that they received from their recruiter; the less successful they were from graduating boot camp. In addition, the positive logit coefficients for the variables with two-way interactions between MALE and q17 show that the farther down the q17 scale the response, the greater the difference between male and female graduation rates. For example, consider a male and a female recruit, otherwise all alike, who both answered “Excellent” on q17. Their overall logits will differ by 1.3174, indicating that the male will have log odds of graduation higher by that amount. Since exp(1.3174) = 3.734, this indicates that the male’s odds of graduation are about 3.7 times those of the female. If both of these recruits, however, had answered “Good” on q17, the difference in their logits would be 1.3174 plus 0.0597, giving an odds ratio of

3.963. In short, the interaction specifies that the difference between female and male success rates is itself different depending on the value of the response to q17.

Variable	Logit Coefficient
q17=Excellent	BASE
q17=Good	-0.6172
q17=Satisfactory	-0.5390
q17=Fair	-1.1725
q17=Poor	-2.0856

	Logit Coefficient	
Interaction Variable	MALE=0	MALE=1
q17=Excellent	0	0
q17=Good	0	0.0597
q17=Satisfactory	0	0.2798
q17=Fair	0	0.2112
q17=Poor	0	0.9661

Table 26. Logit Coefficients for q17 and MALE:q17

5.2.6 Final Model Summary

Interactions were included in the final model to get a better fit with respect to predicting a recruit's success of graduating boot camp. Unfortunately, models with interactions are less easily interpreted. Analysis showed, however, that interactions were indeed present and should not be ignored. Therefore, the final model included two-way interactions, but excluded the three-way interactions.

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6. CONCLUSION

Data analysis showed that, in general, military affiliation did not have a significant effect on the overall demographic makeup of recruits or their responses to the New Sailor Survey outside areas where one was expected. The rate of military affiliation was slightly higher among females than among males. This could understandably be correlated to the already low enlistment rates of females and the advantage of having being exposed to the military environment. Understandably, military affiliation rates were low among Hispanics and non-U.S. citizens. The high rate of immigration of people of Hispanic descent in the past 15 years would easily contribute to this.

Data analysis also showed that, in general, military affiliation did not have an unexplainable significant effect on responses to the New Sailor Survey. Individual question analysis showed that the obvious factors of always wanting to be in the Navy, military tradition in the family, and parents' encouragement to join were all influencing factors. Likewise, benefits, security, and training also showed to be stronger influencing forces to join for recruits with military affiliation than for those without. While in the DEP, recruits with military affiliation met more often with their recruiter. In addition, they had a stronger desire to meet more often with their recruiter. They also felt more comfortable asking their recruiter questions and were more willing to recommend the Navy. In addition, parents were more likely to see their son or daughter's recruiter once or more than once if military affiliation was part of the family. All these factors can be attributed to the military being a known enterprise to recruits with military affiliation. They understand the rewards of serving in the military; they feel comfortable in the military environment; and they welcome the military tradition into their families.

New Sailor Survey responses showed that individual significance was present, meaning that military affiliation was associated with responses to individual questions. But could it be translated to the survey as a whole?

Analyzing the responses as a whole suggested that military affiliation may have an effect on how recruits respond. However, no definitive conclusion could be made at this time.

Further study and analysis is needed to draw a firm conclusion. With the ongoing administration of the New Sailor Survey instrument to recruits entering boot camp, a follow-up study, as well as a longitudinal analysis, would greatly enhance the findings of New Sailor Survey responses with respect to military affiliation by this study.

It was desirable to see if military affiliation had an effect on the success of graduation from boot camp. Again, in general, military affiliation had no significant effect. In fact, when backwards-stepwise regression was preformed, the MILITARY AFFILIATION variable was dropped from the logistic model. The two descriptive demographic variables that remained in the final model were MALE and BONUS. Males were more likely to graduate than females. Those recruits with bonus amounts greater or equal to $15,000 also were more likely to graduate. The response to Question 10, which was added to the model, surprisingly suggested that a recruit who was very dissatisfied with the amount of time spent with the classifier, was more likely to graduate than one who was satisfied or very satisfied. The response to Question 17, which was added to the model, revealed that the more prepared a recruit felt by his or her recruiter for boot camp, the more likely he or she was to graduate from boot camp. In the final model, interactions were included to obtain a better fit for predicting success; however, this complicated the interpretation. The results from the final model were less than ideal: they were difficult to fully appreciate and to interpret. Classification and regression trees were explored to see if the descriptive demographic variables, and accompanying survey responses, would lead to a useful predictor of success of graduating from boot camp. Unfortunately, the trees resulted in branches that split at inopportune points along the Likert scale, rendering them meaningless.

As more data is collected, however, the New Sailor Survey will present an increasing opportunity for analysis. This study conducted its research on four waves of the survey administered in fiscal year 2007, which resulted in 2,101 data points.

First, this study confirms that specific demographics are logically associated with and without military affiliation.

Second, military affiliation showed to have no association with success from graduating boot camp.

Finally, this study presents the argument that military affiliation is associated with recruits' survey responses; but further analysis of more data points is needed.

As more data is collected and analyzed, it is believed that conclusions about the effect of military affiliation will become clearer, and predictors of success will be more interpretable and powerful.

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APPENDIX A: NEW SAILOR SURVEY INSTRUMENT

Informed Consent and Privacy Act Statement
New Sailor Survey

You are being invited to take part in a research study titled "*New Sailor Survey*", conducted by the Navy Research & Survey Group of the Navy Recruiting Command (CNRC). Your decision to take part in this survey effort is voluntary and you may refuse to take part, or choose to stop taking the survey, at any time. A decision not to take part, or to stop being a part of the research project will not negatively impact you in any way. Public Law 93-579, called the Privacy Act of 1974, requires that you be informed of the purpose of this survey and of the uses to be made of the information collected. Authority to request this information is granted under 10 U.S.C. 5031 and 5032, and 5 U.S.C. 301, the Department of the Navy Regulations and Executive Order 9397. License to administer this survey is granted per OPNAVINST 5300.8B under OPNAV Report Control Symbol 1040-3, which expires 01 December 2009.

PURPOSE/ROUTINE USES: The purpose of this questionnaire is to collect information concerning the recruiting process and Delayed Entry Program (DEP) of the United States Navy. The information provided in this questionnaire will be used by CNRC.

PARTICIPATION: Completion of this questionnaire is entirely voluntary. Failure to respond to any of the questions will NOT result in any penalties except possible lack of representation of your views in the final results and outcomes. You may discontinue participation at any time without penalty. There is no direct benefit from being in this study; however, taking part may help improve Navy policies, programs, and/or procedures for Navy personnel in the future.

RISK(S): The only risk to you is inappropriate disclosure of data you provide. However, CNRC has a number of procedures in place to ensure that the data collected is safe and protected. The data files will be maintained by the CNRC Strategic Plans, Research and Analysis Department, Research and Survey Group (CODE N5212).

CONFIDENTIALITY: All responses will be held in confidence by CNRC. Information you provide will be statistically summarized with the responses of others, and will not be attributable to any single individual. The information provided will not become part of your military record and will not affect your career in any way.

QUESTIONS: If you have any questions about this research study, please contact the Project Director, Michael Evans, at (901) 874-7629 or email her at michael.e.evans5@navy.mil.

NPRST PHS STATEMENT:
This study has been reviewed by the Navy Personnel Research, Studies, & Technology department's Protection of Human Subjects (PHS) Committee of the Navy Personnel Command. For any questions about research subject's rights, call the NPRST PHS at (901) 874-4994, e-mail nprstpao@persnet.navy.mil.

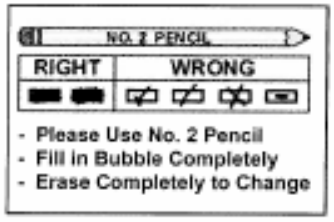
Do you voluntarily agree to participate in this study?

- ❑ Yes
- ❑ No - Please discontinue survey and give back to administrators.

New Sailor Survey (V2)

1) Today's Date (mmddyyyy) Ex: May 1, 2005 enter 05012005

0 1 2 3 4 5 6 7 8 9



2) SSN (Write # on line then fill in bubbles)

0 1 2 3 4 5 6 7 8 9

How long were you in the Delayed Entry Program (DEP)?

- ☐ 0 - 1 month
- ☐ 2 - 3 months
- ☐ 4 - 6 months
- ☐ 7 - 9 months
- ☐ 10 or more months

Approximately how many DEP meetings did you attend?

- ☐ None
- ☐ 1 - 3
- ☐ 4 - 6
- ☐ 7 - 9
- ☐ 10 or more

Was the number of DEP meetings:

- ☐ Not applicable, I did not attend any DEP meetings
- ☐ Too few
- ☐ About right
- ☐ Too many

On average, how long were your DEP meetings?

- ☐ Less than 15 minutes
- ☐ 15 - 30 minutes
- ☐ More than 30 minutes but less than 60
- ☐ 60 to 90 minutes
- ☐ More than 90 minutes

Was the length of DEP meetings:

- ☐ Not applicable, I did not attend any DEP meetings
- ☐ Too long
- ☐ About right
- ☐ Too short

Using the scale below, please indicate the extent to which the following factors have influenced you (contributed to your decision) to join the Navy.

	Very great extent	Great extent	Moderate extent	Slight extent	Not at all	Does not apply
Get away from hometown	☐	☐	☐	☐	☐	☐
Time to figure out what I want to do	☐	☐	☐	☐	☐	☐
Wanted a break from school	☐	☐	☐	☐	☐	☐
Challenging or interesting work	☐	☐	☐	☐	☐	☐
Travel and new experiences	☐	☐	☐	☐	☐	☐
Always wanted to be in the Navy	☐	☐	☐	☐	☐	☐
Military tradition in my family	☐	☐	☐	☐	☐	☐
Parents encouraged me to join	☐	☐	☐	☐	☐	☐
My friend(s) joined the Navy	☐	☐	☐	☐	☐	☐
Desire to serve my country	☐	☐	☐	☐	☐	☐
Navy pay	☐	☐	☐	☐	☐	☐
Medical/Dental benefits	☐	☐	☐	☐	☐	☐
Family benefits	☐	☐	☐	☐	☐	☐
Retirement pay and benefits	☐	☐	☐	☐	☐	☐
Security and stability of a Navy job	☐	☐	☐	☐	☐	☐
Personal growth	☐	☐	☐	☐	☐	☐
Defend the United States	☐	☐	☐	☐	☐	☐

Using the scale below, please indicate the extent to which the following factors have influenced you (contributed to your decision) to join the Navy.

	Very great extent	Great extent	Moderate extent	Slight extent	Not at all	Does not apply
Get away from family or personal situations	☐	☐	☐	☐	☐	☐
Wanted to test myself in a demanding situation	☐	☐	☐	☐	☐	☐
Few or no civilian jobs I wanted were available	☐	☐	☐	☐	☐	☐
Opportunity to work in a specific occupation of interest	☐	☐	☐	☐	☐	☐
Training in skills useful for civilian employment	☐	☐	☐	☐	☐	☐
Education benefits (money for college/graduate school)	☐	☐	☐	☐	☐	☐
My spouse/boyfriend/girlfriend encouraged me to join	☐	☐	☐	☐	☐	☐

How difficult do you think Recruit Training Command (RTC) will be?

- ☐ Extremely difficult
- ☐ Very difficult
- ☐ Moderately difficult
- ☐ Slightly difficult
- ☐ Not at all difficult

On average, how many times did you meet with your recruiter while in the DEP?

- ☐ Not applicable, I was only in DEP a few days or I am prior military
- ☐ Less than once per month
- ☐ Once a month
- ☐ Once every two weeks
- ☐ Once a week or more

Was the number of contacts with your current recruiter before coming to Great Lakes:

- ☐ Too few
- ☐ About right
- ☐ Too many

How satisfied were you with the amount of time you spent with your classifier?

- ☐ Not applicable
- ☐ Very satisfied
- ☐ Satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Dissatisfied
- ☐ Very dissatisfied

To what extent was each of the following explained to you?

	Very great extent	Great extent	Moderate extent	Slight extent	Not at all	Does not apply
The importance of the ASVAB test in qualifying you for Navy jobs	☐	☐	☐	☐	☐	☐
The Navy jobs available to you at classification	☐	☐	☐	☐	☐	☐
Any special programs available to you at classification	☐	☐	☐	☐	☐	☐
Any bonus programs available to you at classification	☐	☐	☐	☐	☐	☐
The job you were assigned at classification	☐	☐	☐	☐	☐	☐
The school you were guaranteed at classification	☐	☐	☐	☐	☐	☐

Did your recruiter explain your responsibilities while in the DEP?

- ☐ Yes, my recruiter explained them
- ☐ No, my recruiter never discussed this topic with me
- ☐ I really don't remember if my recruiter did or did not

What progress did you make on the DEP Personal Qualification Standards (PQS)?

- ☐ I completed PQS
- ☐ I only finished part of PQS
- ☐ I did not complete any of PQS
- ☐ I have never heard of PQS

To what extent was the information you received in the DEP accurate?

- ☐ Very great extent
- ☐ Great extent
- ☐ Moderate extent
- ☐ Slight extent
- ☐ Not at all

Please select all of the following that are currently or have ever served in the military. (Select all that apply)

- ☐ Father
- ☐ Mother
- ☐ Sibling (brother or sister)
- ☐ Grandparent
- ☐ None of the above

Please use the scale below to show how much you AGREE or DISAGREE with each of the following statements concerning your current enlistment.

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
My recruiter was thorough in his/her responses to my questions	☐	☐	☐	☐	☐
My recruiter was honest with me	☐	☐	☐	☐	☐
My recruiter treated me with respect	☐	☐	☐	☐	☐
My recruiter provided me with correct information	☐	☐	☐	☐	☐
All my questions were answered by my recruiter	☐	☐	☐	☐	☐
All my concerns were answered by my recruiter	☐	☐	☐	☐	☐
My recruiter made me feel comfortable enough to ask questions	☐	☐	☐	☐	☐
I would recommend the Navy to a friend/family member	☐	☐	☐	☐	☐
I would recommend my recruiter to a friend/family member	☐	☐	☐	☐	☐

The preparation for RTC that I received from my recruiter was

- ☐ Not applicable, I did not receive any preparation from my recruiter
- ☐ Excellent
- ☐ Good
- ☐ Satisfactory
- ☐ Fair
- ☐ Poor

Overall, my current recruiting experience was:

- ☐ Excellent
- ☐ Good
- ☐ Satisfactory
- ☐ Fair
- ☐ Poor

Did your recruiter meet with your parent(s)?

- ☐ Yes, once
- ☐ Yes, more than once
- ☐ No
- ☐ Not applicable, my parent(s) were not involved with my enlistment process

The Navy sponsors a variety of sporting events and activities. Using the scale below, please indicate your level of awareness of the Navy's sponsorship of the following:

(1 unaware - 5 very aware)

	1	2	3	4	5
NFL	☐	☐	☐	☐	☐
Ultimate Fighting Championship	☐	☐	☐	☐	☐
NASCAR	☐	☐	☐	☐	☐
X-Games	☐	☐	☐	☐	☐
NCAA Basketball	☐	☐	☐	☐	☐
NBA	☐	☐	☐	☐	☐
MLB	☐	☐	☐	☐	☐
NCAA Football	☐	☐	☐	☐	☐
NHL	☐	☐	☐	☐	☐

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE

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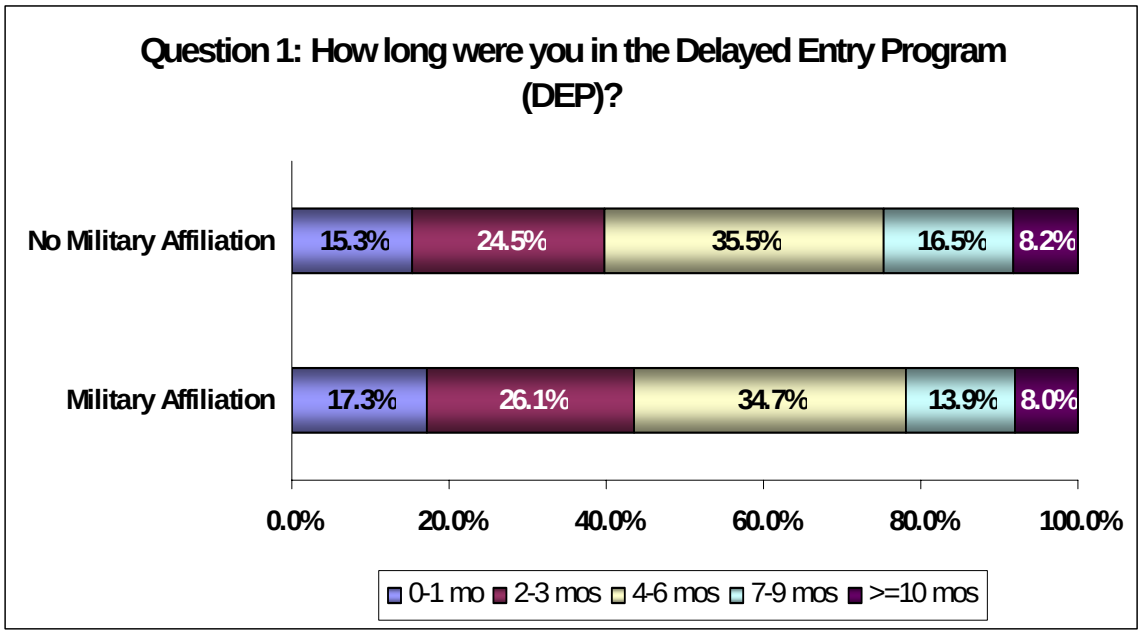
APPENDIX B: SURVEY QUESTION RESULTS

Question 1: How long were you in the Delayed Entry Program (DEP)?

	Military Affiliation	No Military Affiliation
0-1 mo	160	179
2-3 mos	242	286
4-6 mos	321	414
7-9 mos	129	192
>=10 mos	74	96
	Military Affiliation	No Military Affiliation
0-1 mo	17.3%	15.3%
2-3 mos	26.1%	24.5%
4-6 mos	34.7%	35.5%
7-9 mos	13.9%	16.5%
>=10 mos	8.0%	8.2%

n->	926	1167

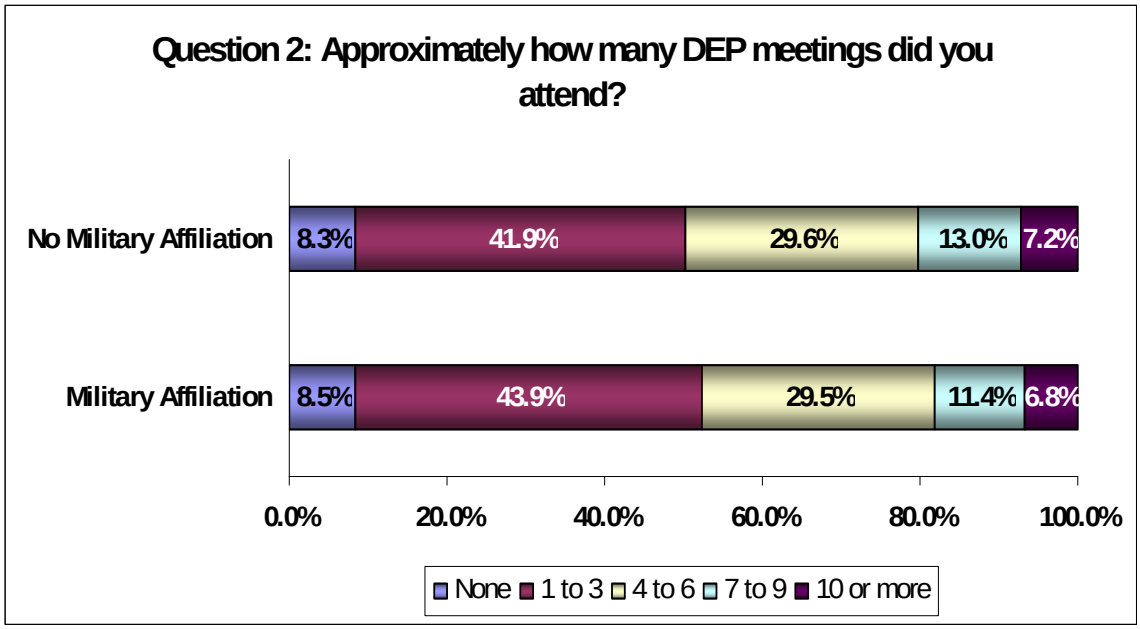
Chi-Squared Statistic	4.0135
p-value	0.4042



Question 2: Approximately how many DEP meetings did you attend?

	Military Affiliation	No Military Affiliation
None	78	96
1 to 3	405	487
4 to 6	272	344
7 to 9	105	151
10 or more	63	84
	Military Affiliation	No Military Affiliation
None	8.5%	8.3%
1 to 3	43.9%	41.9%
4 to 6	29.5%	29.6%
7 to 9	11.4%	13.0%
10 or more	6.8%	7.2%

Chi-Squared Statistic	1.7077
p-value	0.7893

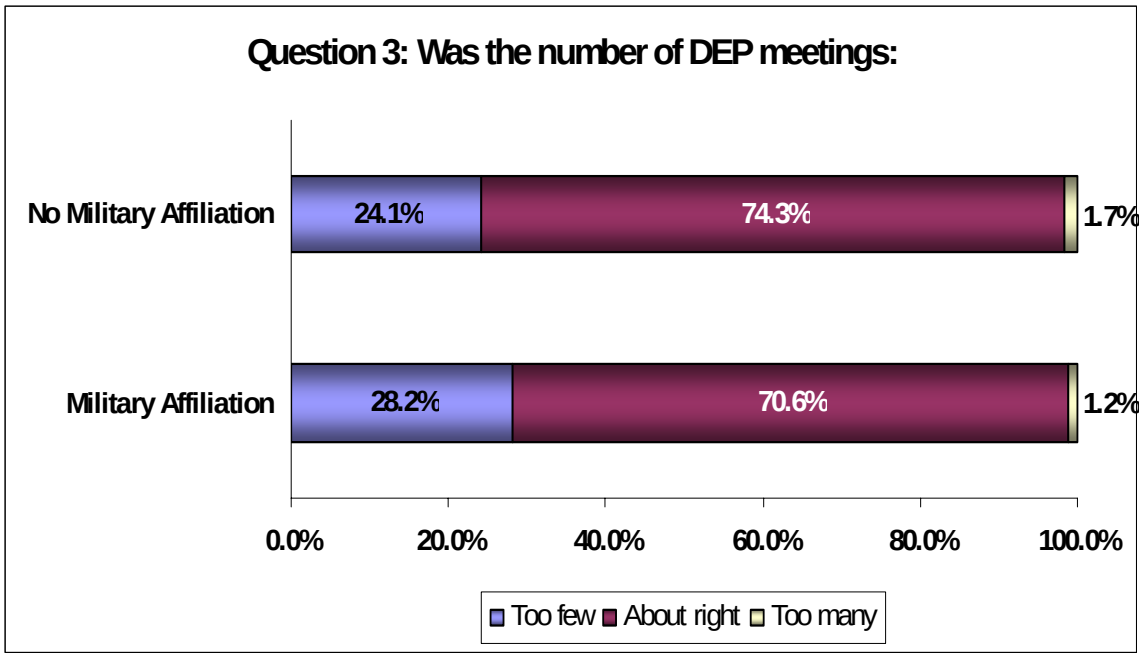


Question 3: Was the number of DEP meetings:

	Military Affiliation	No Military Affiliation
Not applicable	77	97
Too few	239	257
About right	599	793
Too many	10	18
	Military Affiliation	No Military Affiliation
Not applicable	8.3%	8.3%
Too few	28.2%	24.1%
About right	70.6%	74.3%
Too many	1.2%	1.7%
applicable % total->	100.0%	100.0%

n->	925	1165
applciable n->	848	1068

Chi-Squared Statistic	4.7783
p-value	0.0917

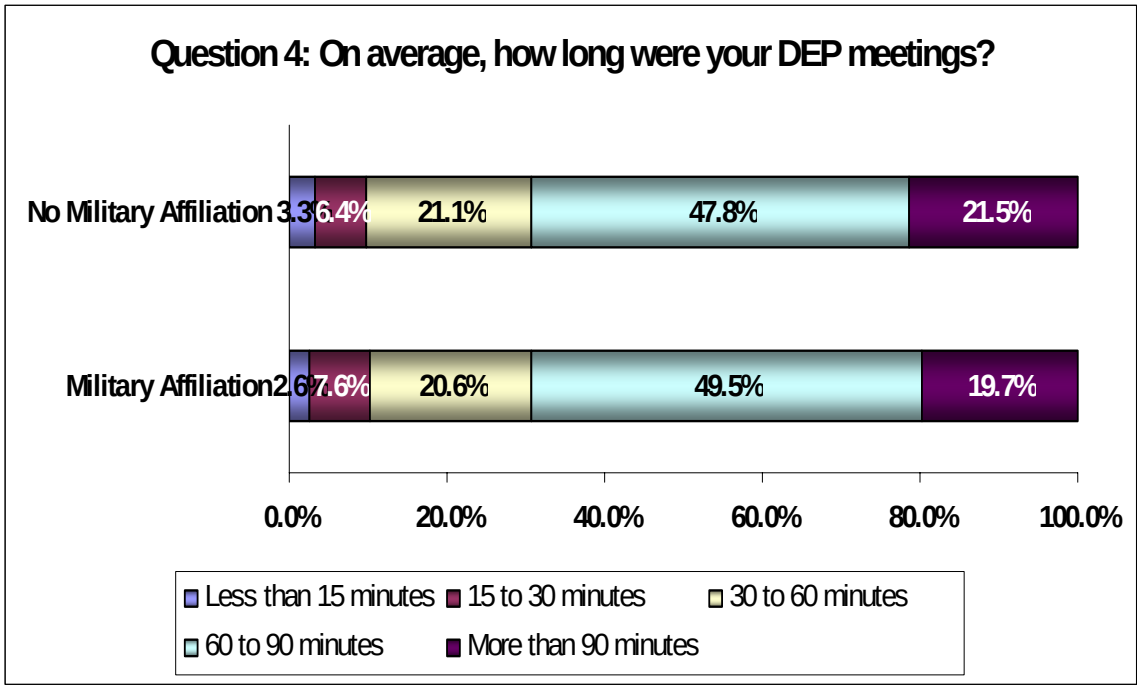


Question 4: On average, how long were your DEP meetings?

	Military Affiliation	No Military Affiliation
Less than 15 minutes	23	37
15 to 30 minutes	67	71
30 to 60 minutes	181	235
60 to 90 minutes	436	532
More than 90 minutes	173	239
	Military Affiliation	No Military Affiliation
Less than 15 minutes	2.6%	3.3%
15 to 30 minutes	7.6%	6.4%
30 to 60 minutes	20.6%	21.1%
60 to 90 minutes	49.5%	47.8%
More than 90 minutes	19.7%	21.5%

n->	880	1114

Chi-Squared Statistic	3.0676
p-value	0.5466

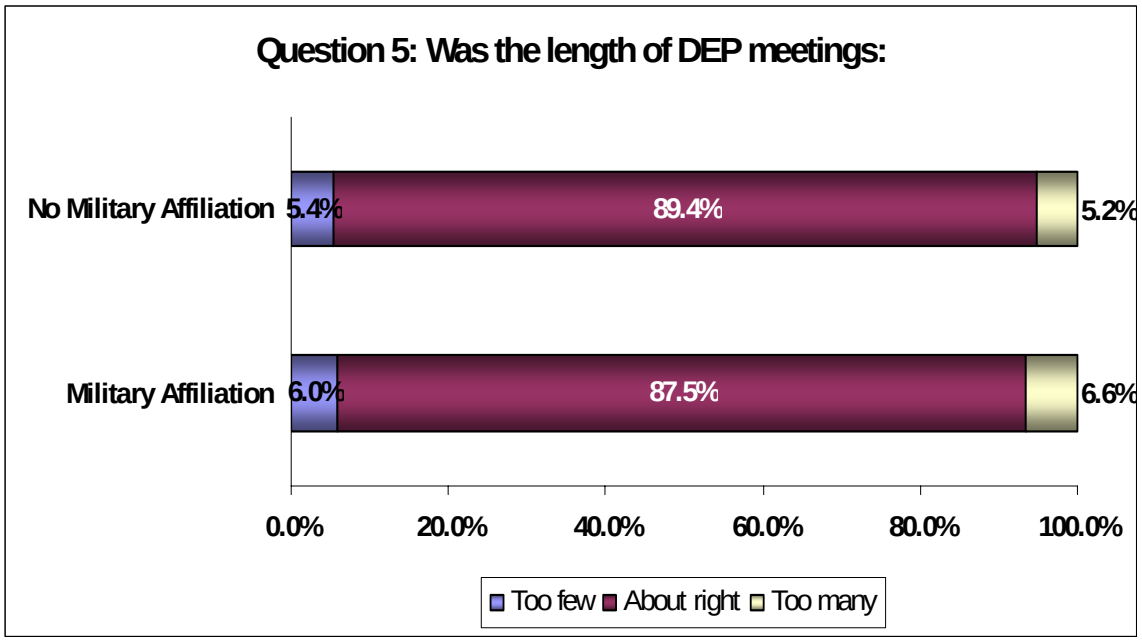


Question 5: Was the length of DEP meetings:

	Military Affiliation	No Military Affiliation
Not applicable	79	97
Too few	50	57
About right	732	948
Too many	55	55
	Military Affiliation	No Military Affiliation
Not applicable	8.6%	8.4%
Too few	6.0%	5.4%
About right	87.5%	89.4%
Too many	6.6%	5.2%
applicable % total->	100.0%	100.0%

n->	916	1157
applciable n->	837	1060

Chi-Squared Statistic	2.0431
p-value	0.3600

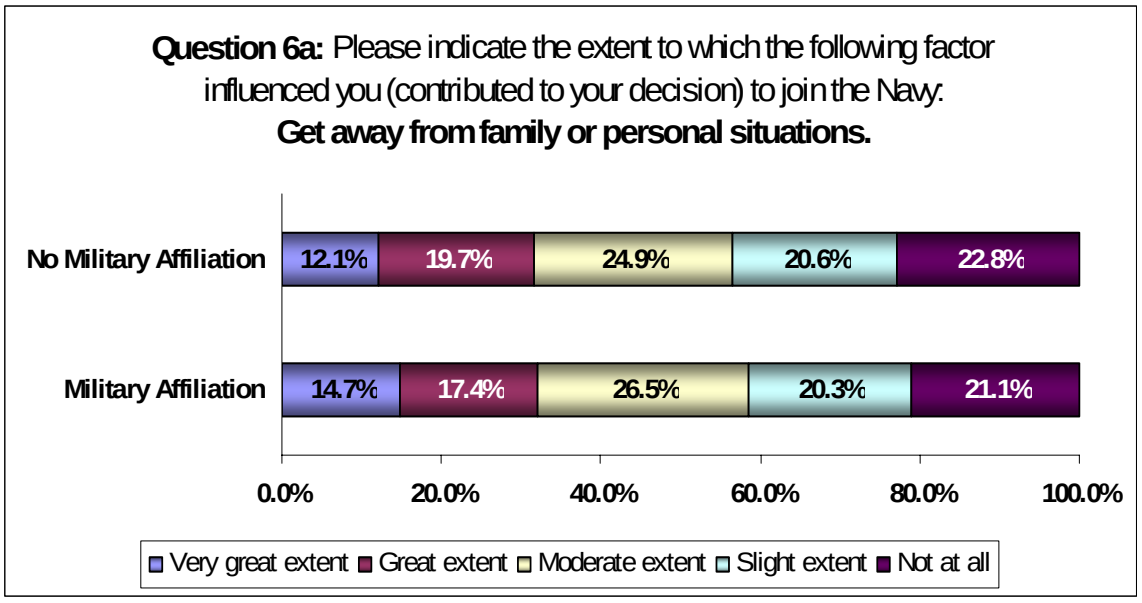


Question 6a: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **Get away from family or personal situations.**

	Military Affiliation	No Military Affiliation
Very great extent	127	130
Great extent	150	212
Moderate extent	228	268
Slight extent	175	222
Not at all	182	246
Does not apply	46	64
	Military Affiliation	No Military Affiliation
Very great extent	14.7%	12.1%
Great extent	17.4%	19.7%
Moderate extent	26.5%	24.9%
Slight extent	20.3%	20.6%
Not at all	21.1%	22.8%
applicable % total ->	100.0%	100.0%
Does not apply	5.1%	5.6%

n->	908	1142
applicable n->	862	1078

Chi-Squared Statistic	5.0268
p-value	0.2846

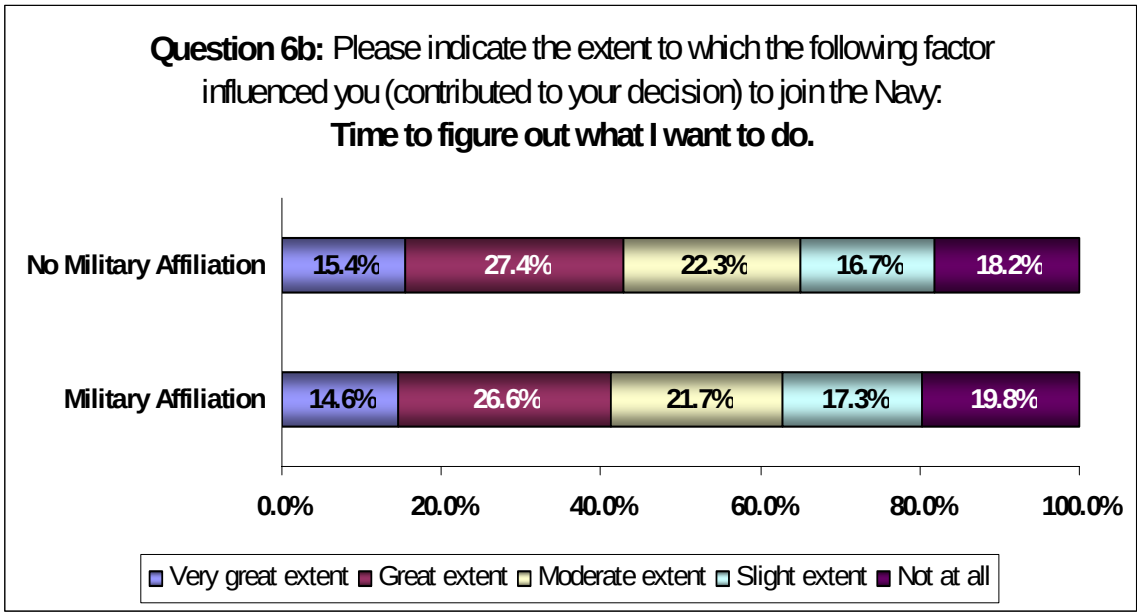


Question 6b: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **Time to figure out what I want to do.**

	Military Affiliation	No Military Affiliation
Very great extent	126	167
Great extent	230	298
Moderate extent	188	242
Slight extent	150	182
Not at all	171	198
Does not apply	43	53
	Military Affiliation	No Military Affiliation
Very great extent	14.6%	15.4%
Great extent	26.6%	27.4%
Moderate extent	21.7%	22.3%
Slight extent	17.3%	16.7%
Not at all	19.8%	18.2%
applicable % total ->	100.0%	100.0%
Does not apply	4.7%	4.6%

n->	908	1140
applicable n->	865	1087

Chi-Squared Statistic	1.1024
p-value	0.8939

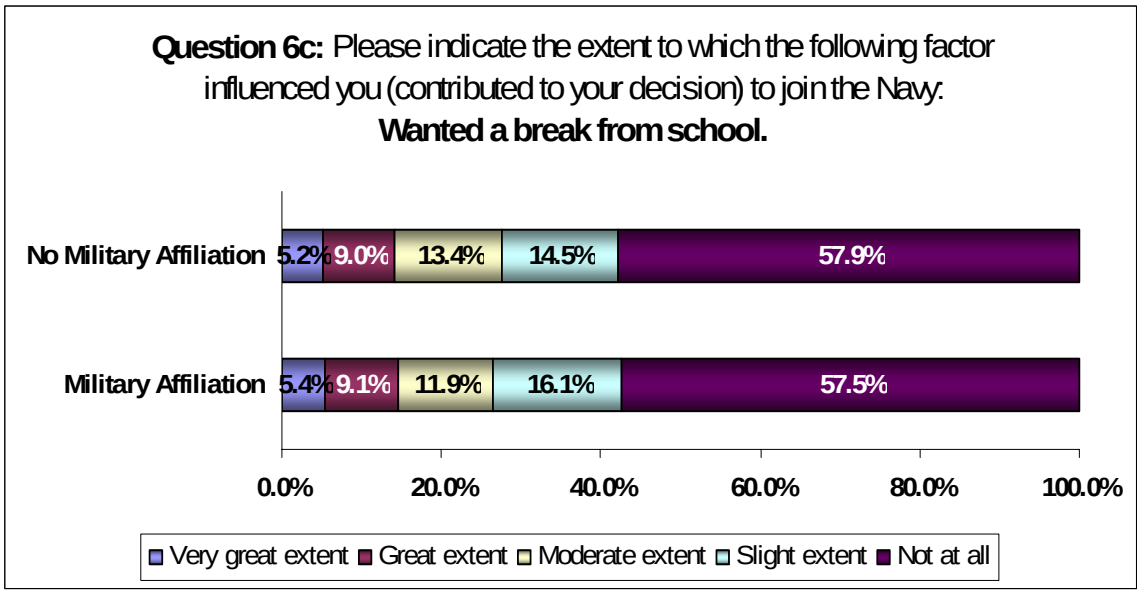


Question 6c: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy:
Wanted a break from school.

	Military Affiliation	No Military Affiliation
Very great extent	35	42
Great extent	59	73
Moderate extent	77	109
Slight extent	104	118
Not at all	372	470
Does not apply	249	321
	Military Affiliation	No Military Affiliation
Very great extent	5.4%	5.2%
Great extent	9.1%	9.0%
Moderate extent	11.9%	13.4%
Slight extent	16.1%	14.5%
Not at all	57.5%	57.9%
applicable % total ->	100.0%	100.0%
Does not apply	27.8%	28.3%

n->	896	1133
applicable n->	647	812

Chi-Squared Statistic	1.2719
p-value	0.8661

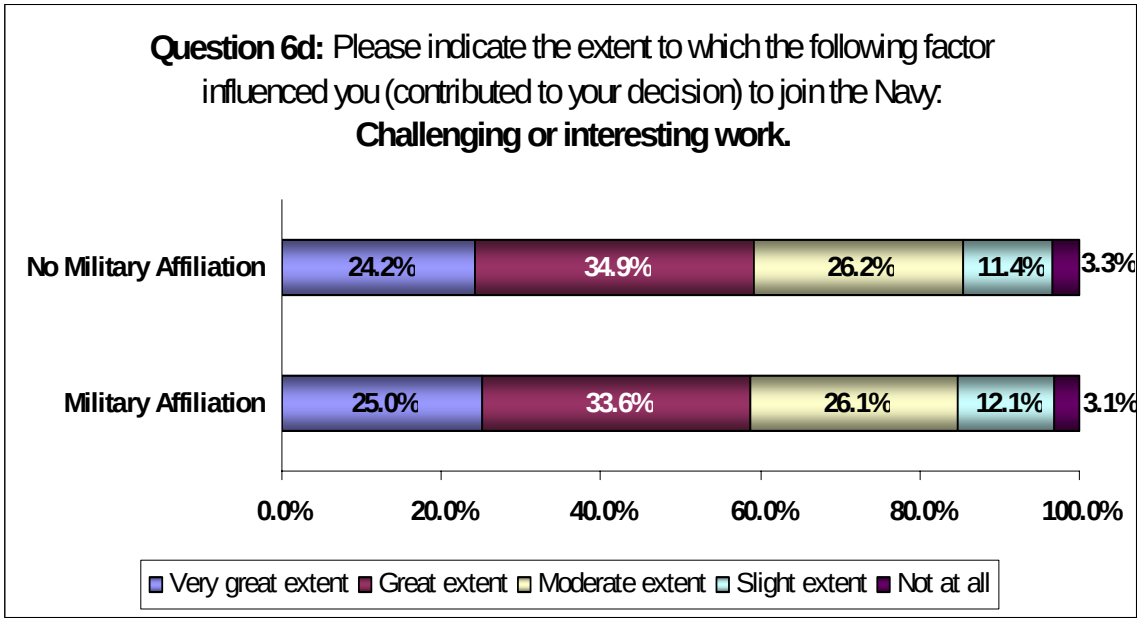


Question 6d: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **Challenging or interesting work.**

	Military Affiliation	No Military Affiliation
Very great extent	224	274
Great extent	301	395
Moderate extent	234	296
Slight extent	108	129
Not at all	28	37
Does not apply	9	9
	Military Affiliation	No Military Affiliation
Very great extent	25.0%	24.2%
Great extent	33.6%	34.9%
Moderate extent	26.1%	26.2%
Slight extent	12.1%	11.4%
Not at all	3.1%	3.3%
applicable % total ->	100.0%	100.0%
Does not apply	1.0%	0.8%

n->	904	1140
applicable n->	895	1131

Chi-Squared Statistic	0.5926
p-value	0.9639

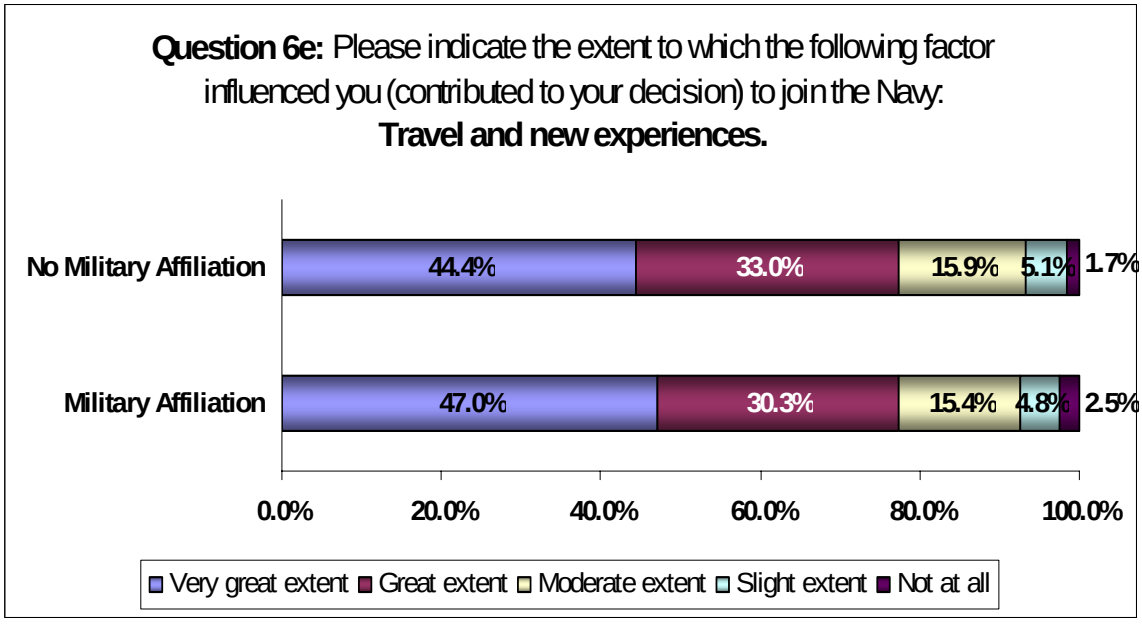


Question 6e: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **Travel and new experiences.**

	Military Affiliation	No Military Affiliation
Very great extent	428	507
Great extent	276	376
Moderate extent	140	181
Slight extent	44	58
Not at all	23	19
Does not apply	3	6
	Military Affiliation	No Military Affiliation
Very great extent	47.0%	44.4%
Great extent	30.3%	33.0%
Moderate extent	15.4%	15.9%
Slight extent	4.8%	5.1%
Not at all	2.5%	1.7%
applicable % total ->	100.0%	100.0%
Does not apply	0.3%	0.5%

n->	914	1147
applicable n->	911	1141

Chi-Squared Statistic	3.8198
p-value	0.4309

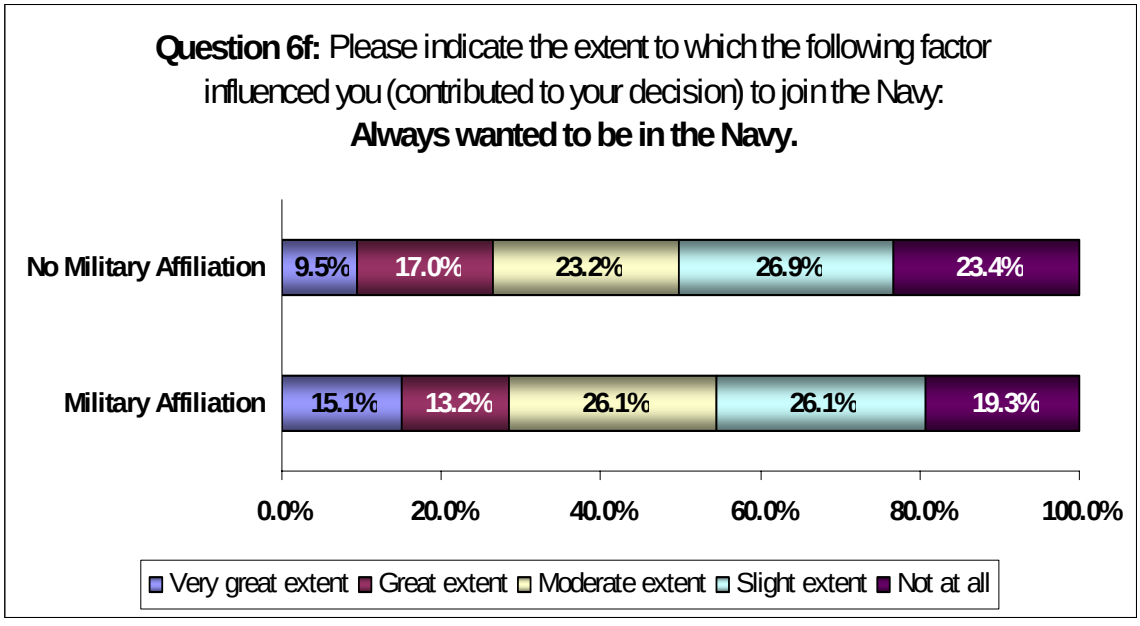


Question 6f: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **Always wanted to be in the Navy.**

	Military Affiliation	No Military Affiliation
Very great extent	129	102
Great extent	113	183
Moderate extent	223	249
Slight extent	223	289
Not at all	165	251
Does not apply	47	59
	Military Affiliation	No Military Affiliation
Very great extent	15.1%	9.5%
Great extent	13.2%	17.0%
Moderate extent	26.1%	23.2%
Slight extent	26.1%	26.9%
Not at all	19.3%	23.4%
applicable % total ->	100.0%	100.0%
Does not apply	5.2%	5.2%

n->	900	1133
applicable n->	853	1074

Chi-Squared Statistic	22.3775
p-value	0.0002

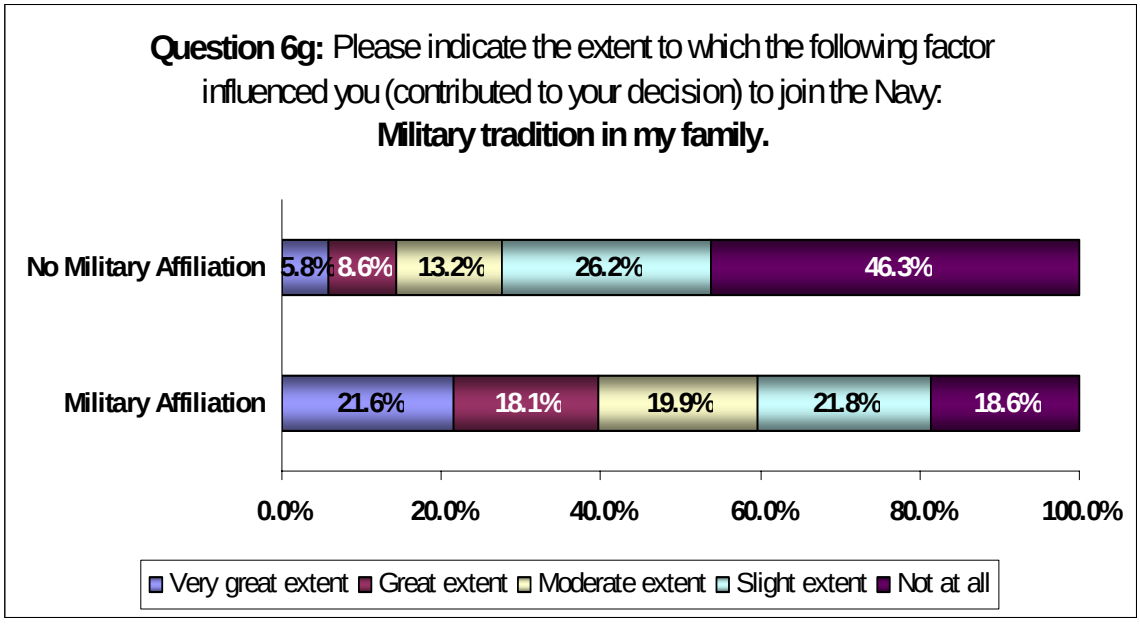


Question 6g: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **Military tradition in my family.**

	Military Affiliation	No Military Affiliation
Very great extent	184	54
Great extent	154	80
Moderate extent	170	123
Slight extent	186	245
Not at all	159	432
Does not apply	58	208
	Military Affiliation	No Military Affiliation
Very great extent	21.6%	5.8%
Great extent	18.1%	8.6%
Moderate extent	19.9%	13.2%
Slight extent	21.8%	26.2%
Not at all	18.6%	46.3%
applicable % total ->	100.0%	100.0%
Does not apply	6.4%	18.2%

n->	911	1142
applicable n->	853	934

Chi-Squared Statistic	232.9396
p-value	0.0000

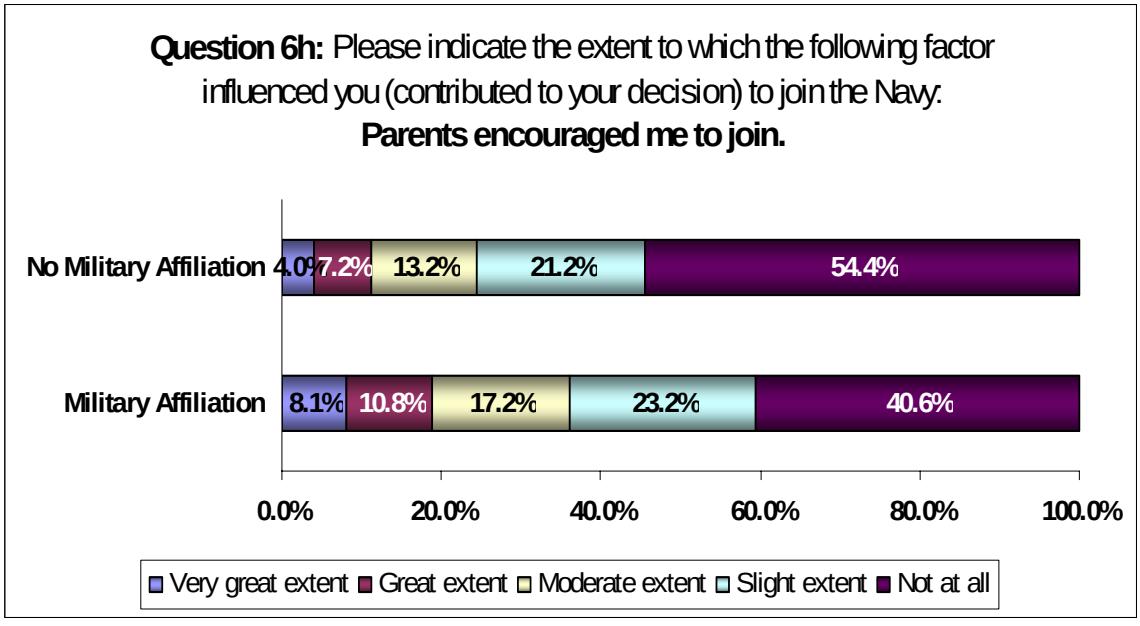


Question 6h: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy:
Parents encouraged me to join.

	Military Affiliation	No Military Affiliation
Very great extent	66	39
Great extent	88	70
Moderate extent	140	128
Slight extent	189	206
Not at all	330	528
Does not apply	92	158
	Military Affiliation	No Military Affiliation
Very great extent	8.1%	4.0%
Great extent	10.8%	7.2%
Moderate extent	17.2%	13.2%
Slight extent	23.2%	21.2%
Not at all	40.6%	54.4%
applicable % total ->	100.0%	100.0%
Does not apply	10.2%	14.0%

n->	905	1129
applicable n->	813	971

Chi-Squared Statistic	42.2932
p-value	0.0000

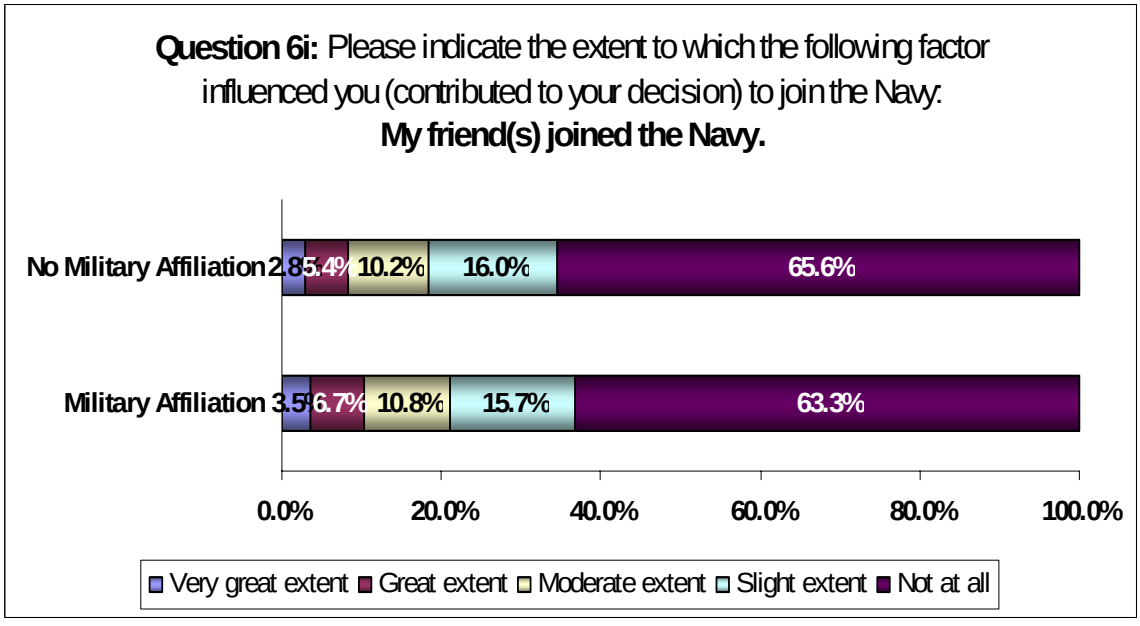


Question 6i: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **My friend(s) joined the Navy.**

	Military Affiliation	No Military Affiliation
Very great extent	25	25
Great extent	47	48
Moderate extent	76	90
Slight extent	111	142
Not at all	446	581
Does not apply	201	244
	Military Affiliation	No Military Affiliation
Very great extent	3.5%	2.8%
Great extent	6.7%	5.4%
Moderate extent	10.8%	10.2%
Slight extent	15.7%	16.0%
Not at all	63.3%	65.6%
applicable % total ->	100.0%	100.0%
Does not apply	22.2%	21.6%

n->	906	1130
applicable n->	705	886

Chi-Squared Statistic	2.1722
p-value	0.7041

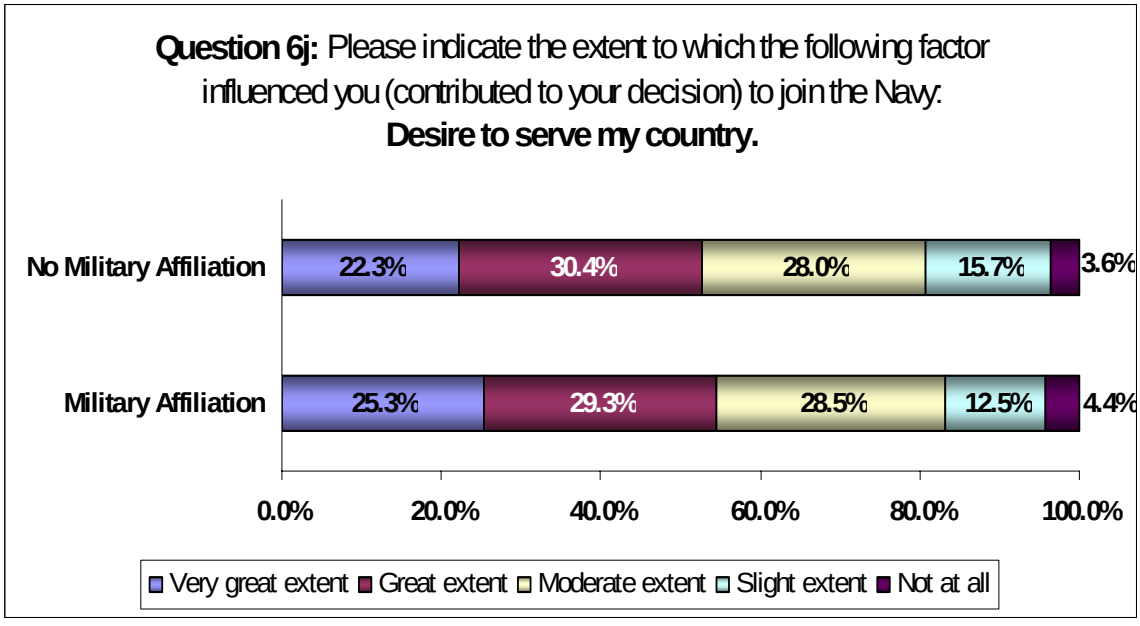


Question 6j: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **Desire to serve my country.**

	Military Affiliation	No Military Affiliation
Very great extent	226	249
Great extent	262	340
Moderate extent	255	313
Slight extent	112	175
Not at all	39	40
Does not apply	11	18
	Military Affiliation	No Military Affiliation
Very great extent	25.3%	22.3%
Great extent	29.3%	30.4%
Moderate extent	28.5%	28.0%
Slight extent	12.5%	15.7%
Not at all	4.4%	3.6%
applicable % total ->	100.0%	100.0%
Does not apply	1.2%	1.6%

n->	905	1135
applicable n->	894	1117

Chi-Squared Statistic	6.3338
p-value	0.1756

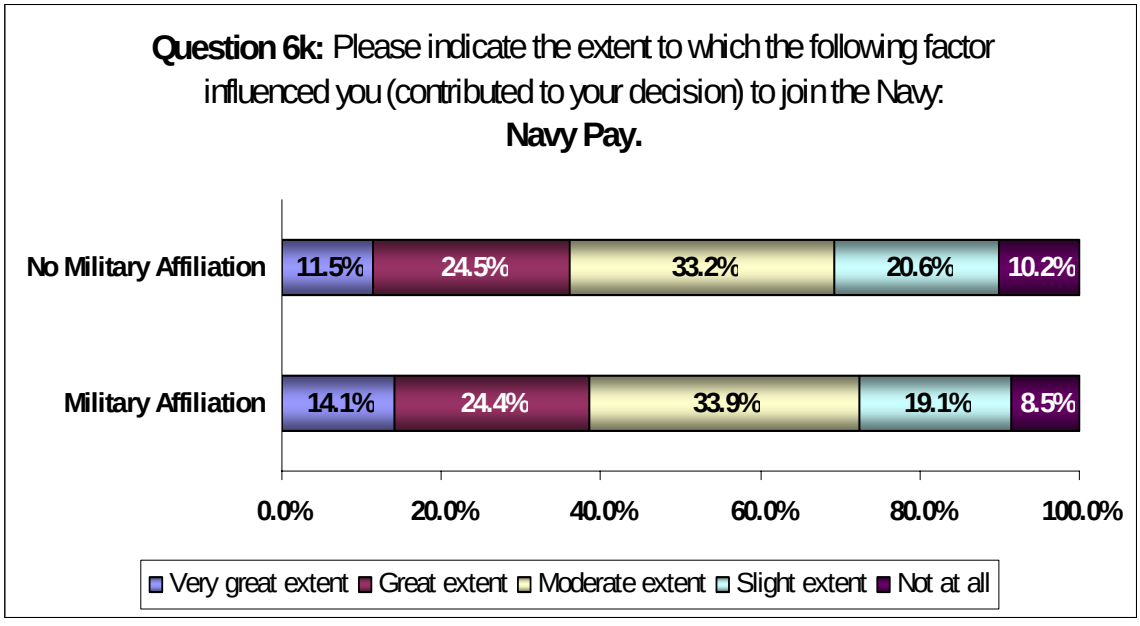


Question 6k: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **Navy pay.**

	Military Affiliation	No Military Affiliation
Very great extent	127	129
Great extent	220	274
Moderate extent	305	372
Slight extent	172	230
Not at all	77	114
Does not apply	12	24
	Military Affiliation	No Military Affiliation
Very great extent	14.1%	11.5%
Great extent	24.4%	24.5%
Moderate extent	33.9%	33.2%
Slight extent	19.1%	20.6%
Not at all	8.5%	10.2%
applicable % total ->	100.0%	100.0%
Does not apply	1.3%	2.1%

n->	913	1143
applicable n->	901	1119

Chi-Squared Statistic	4.6119
p-value	0.3295

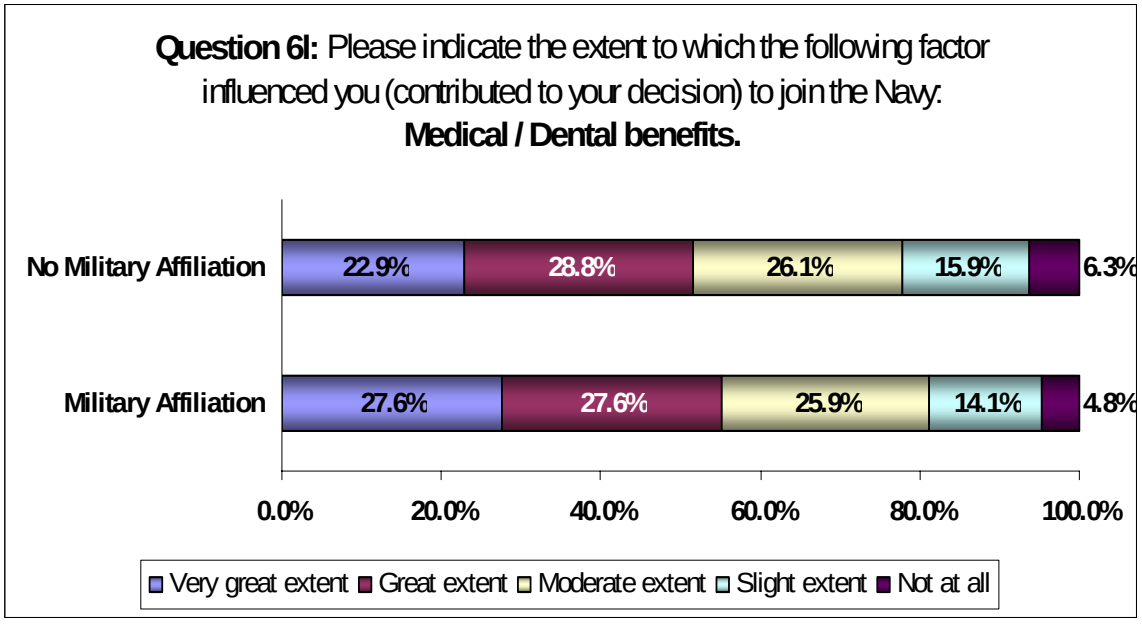


Question 6l: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **Medical / Dental benefits.**

	Military Affiliation	No Military Affiliation
Very great extent	248	254
Great extent	248	320
Moderate extent	233	290
Slight extent	127	177
Not at all	43	70
Does not apply	6	23
	Military Affiliation	No Military Affiliation
Very great extent	27.6%	22.9%
Great extent	27.6%	28.8%
Moderate extent	25.9%	26.1%
Slight extent	14.1%	15.9%
Not at all	4.8%	6.3%
applicable % total ->	100.0%	100.0%
Does not apply	0.7%	2.0%

n->	905	1134
applicable n->	899	1111

Chi-Squared Statistic	7.8124
p-value	0.0987

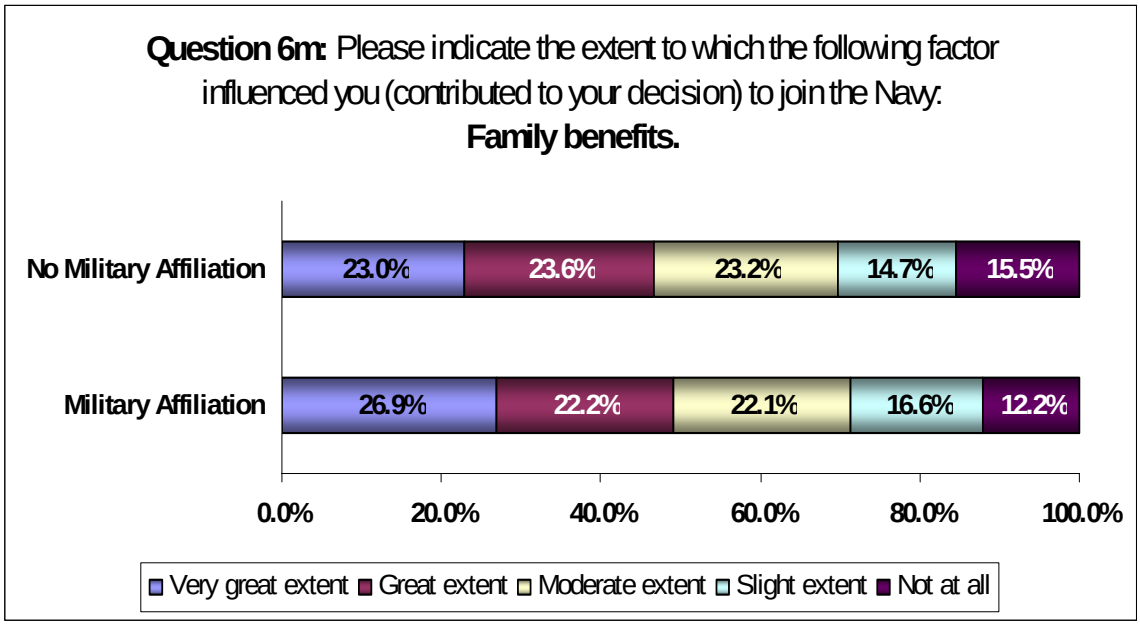


Question 6m: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **Family benefits.**

	Military Affiliation	No Military Affiliation
Very great extent	228	244
Great extent	188	251
Moderate extent	187	246
Slight extent	141	156
Not at all	103	165
Does not apply	63	74
	Military Affiliation	No Military Affiliation
Very great extent	26.9%	23.0%
Great extent	22.2%	23.6%
Moderate extent	22.1%	23.2%
Slight extent	16.6%	14.7%
Not at all	12.2%	15.5%
applicable % total ->	100.0%	100.0%
Does not apply	6.9%	6.5%

n->	910	1136
applicable n->	847	1062

Chi-Squared Statistic	8.6186
p-value	0.0714

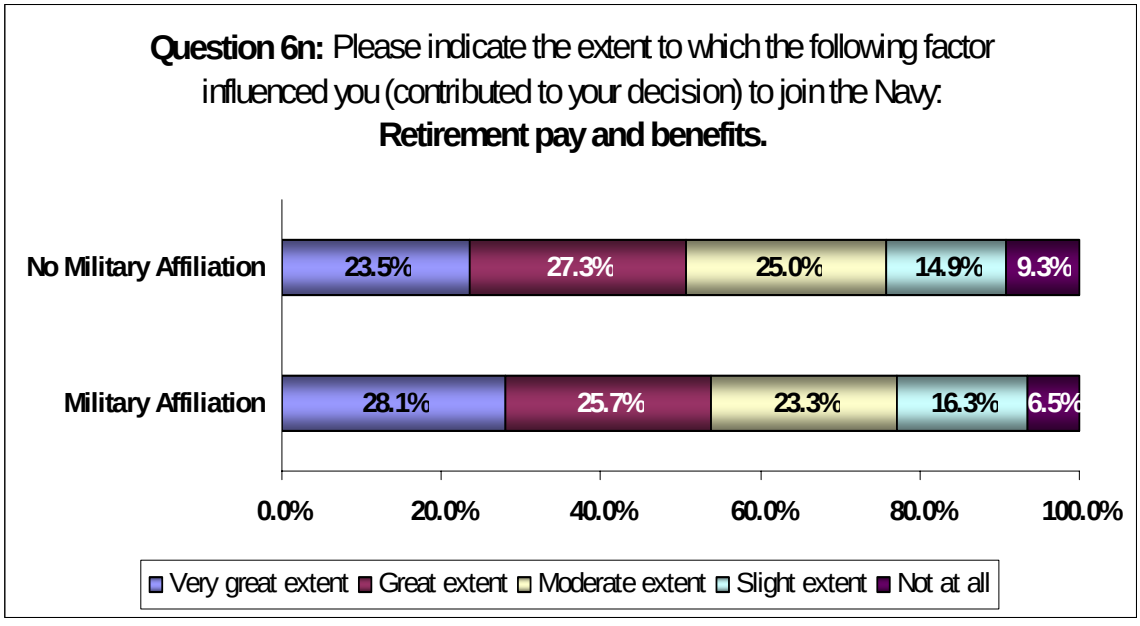


Question 6n: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **Retirement pay and benefits.**

	Military Affiliation	No Military Affiliation
Very great extent	249	261
Great extent	228	303
Moderate extent	207	278
Slight extent	145	166
Not at all	58	103
Does not apply	11	27
	Military Affiliation	No Military Affiliation
Very great extent	28.1%	23.5%
Great extent	25.7%	27.3%
Moderate extent	23.3%	25.0%
Slight extent	16.3%	14.9%
Not at all	6.5%	9.3%
applicable % total ->	100.0%	100.0%
Does not apply	1.2%	2.4%

n->	898	1138
applicable n->	887	1111

Chi-Squared Statistic	10.2811
p-value	0.0359

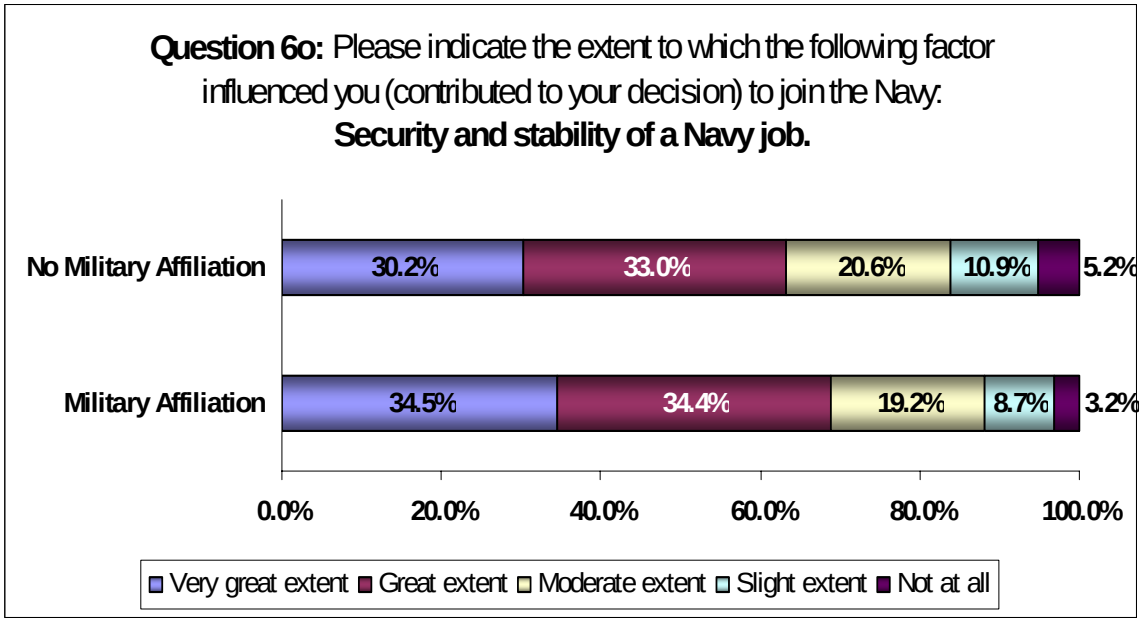


Question 6o: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **Security and stability of a Navy job.**

	Military Affiliation	No Military Affiliation
Very great extent	310	343
Great extent	309	374
Moderate extent	173	234
Slight extent	78	124
Not at all	29	59
Does not apply	7	7
	Military Affiliation	No Military Affiliation
Very great extent	34.5%	30.2%
Great extent	34.4%	33.0%
Moderate extent	19.2%	20.6%
Slight extent	8.7%	10.9%
Not at all	3.2%	5.2%
applicable % total ->	100.0%	100.0%
Does not apply	0.8%	0.6%

n->	906	1141
applicable n->	899	1134

Chi-Squared Statistic	10.6770
p-value	0.0304

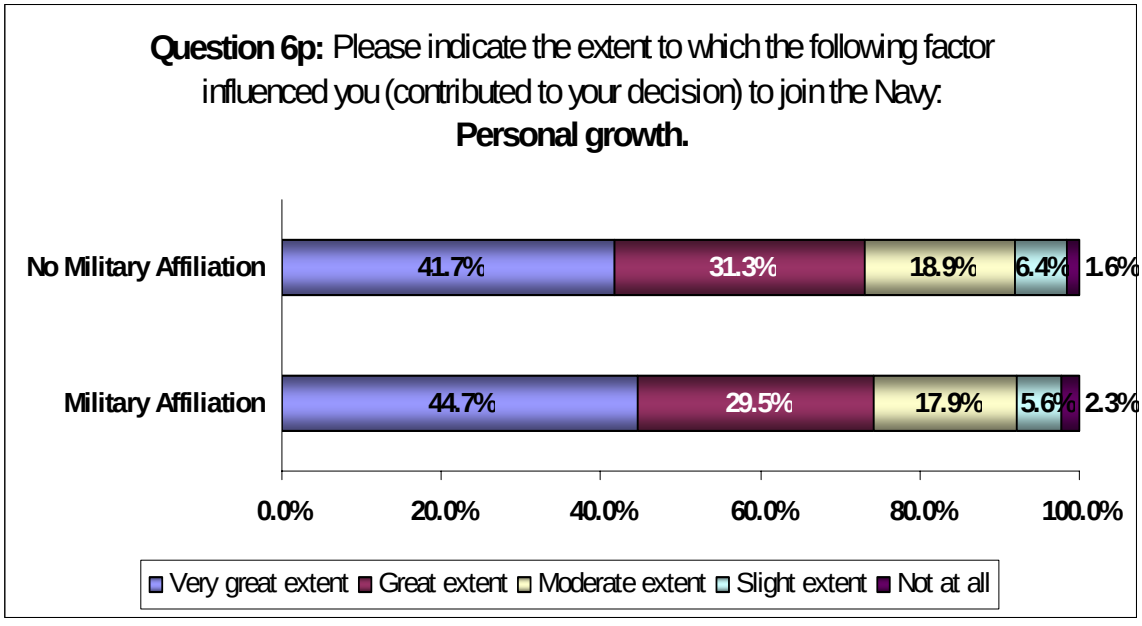


Question 6p: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **Personal growth.**

	Military Affiliation	No Military Affiliation
Very great extent	400	470
Great extent	264	353
Moderate extent	160	213
Slight extent	50	72
Not at all	21	18
Does not apply	3	8
	Military Affiliation	No Military Affiliation
Very great extent	44.7%	41.7%
Great extent	29.5%	31.3%
Moderate extent	17.9%	18.9%
Slight extent	5.6%	6.4%
Not at all	2.3%	1.6%
applicable % total ->	100.0%	100.0%
Does not apply	0.3%	0.7%

n->	898	1134
applicable n->	895	1126

Chi-Squared Statistic	3.8459
p-value	0.4273

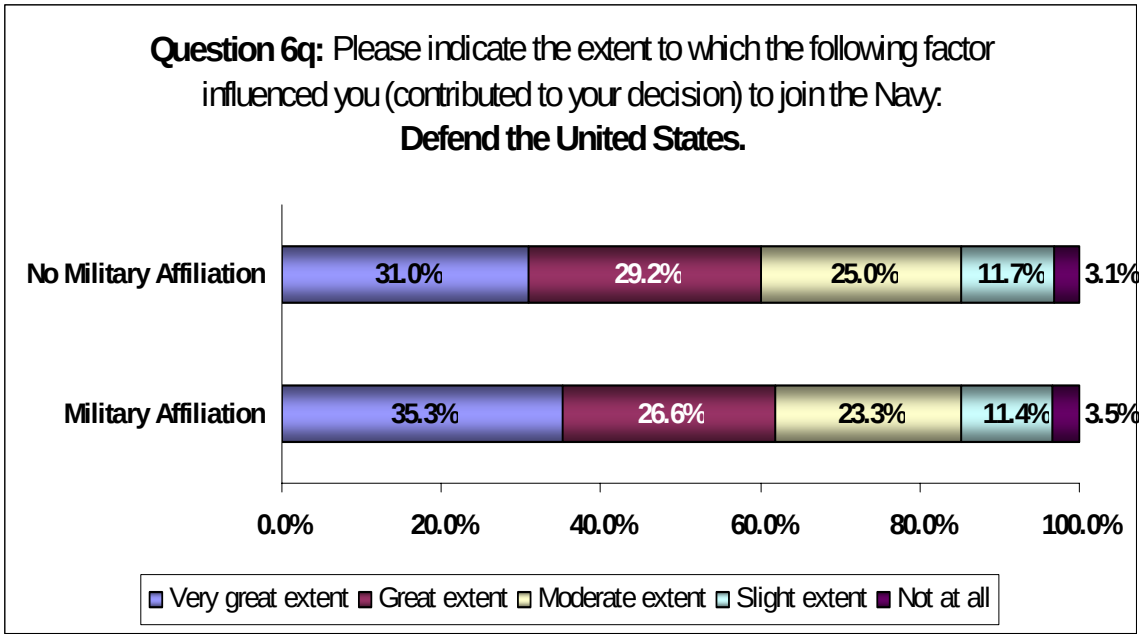


Question 6q: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **Defend the United States.**

	Military Affiliation	No Military Affiliation
Very great extent	317	350
Great extent	239	330
Moderate extent	209	283
Slight extent	102	132
Not at all	31	35
Does not apply	8	13
	Military Affiliation	No Military Affiliation
Very great extent	35.3%	31.0%
Great extent	26.6%	29.2%
Moderate extent	23.3%	25.0%
Slight extent	11.4%	11.7%
Not at all	3.5%	3.1%
applicable % total ->	100.0%	100.0%
Does not apply	0.9%	1.1%

n->	906	1143
applicable n->	898	1130

Chi-Squared Statistic	4.9290
p-value	0.2947

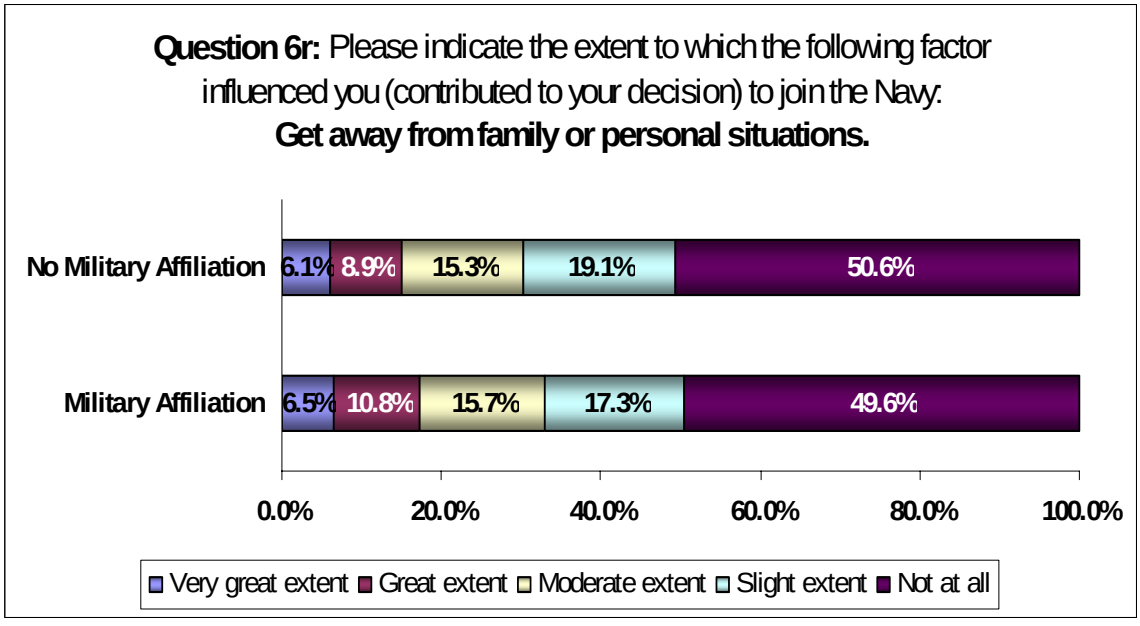


Question 6r: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **Get away from family or personal situations.**

	Military Affiliation	No Military Affiliation
Very great extent	54	63
Great extent	89	91
Moderate extent	130	157
Slight extent	143	196
Not at all	410	520
Does not apply	69	102
	Military Affiliation	No Military Affiliation
Very great extent	6.5%	6.1%
Great extent	10.8%	8.9%
Moderate extent	15.7%	15.3%
Slight extent	17.3%	19.1%
Not at all	49.6%	50.6%
applicable % total ->	100.0%	100.0%
Does not apply	7.7%	9.0%

n->	895	1129
applicable n->	826	1027

Chi-Squared Statistic	2.7812
p-value	0.5951

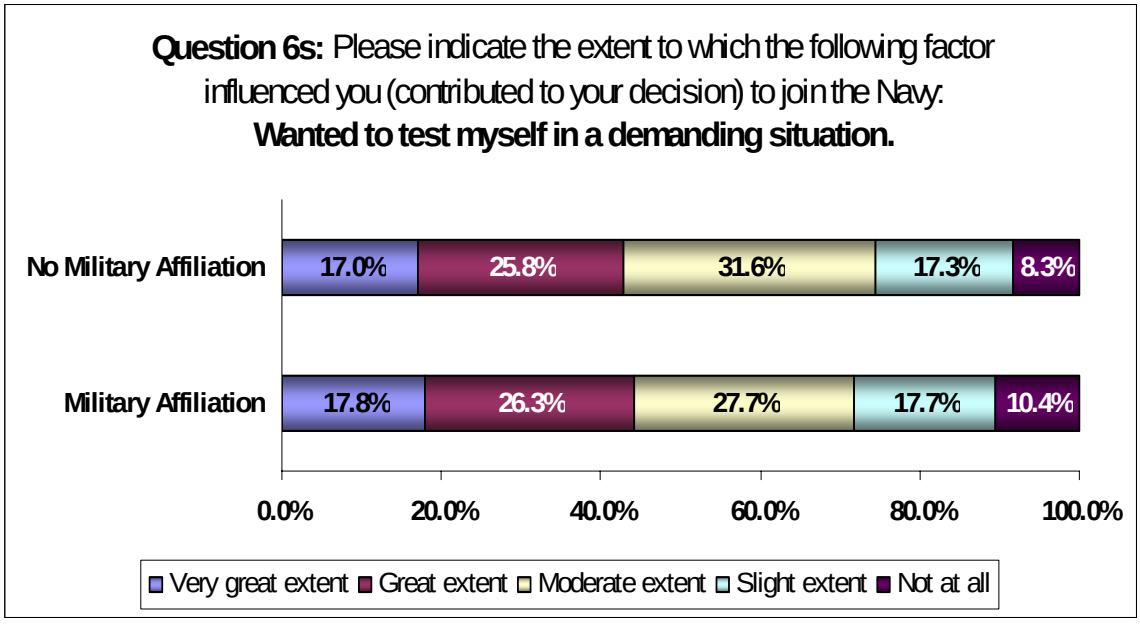


Question 6s: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy:
Wanted to test myself in a demanding situation.

	Military Affiliation	No Military Affiliation
Very great extent	159	191
Great extent	235	289
Moderate extent	247	355
Slight extent	158	194
Not at all	93	93
Does not apply	11	19
	Military Affiliation	No Military Affiliation
Very great extent	17.8%	17.0%
Great extent	26.3%	25.8%
Moderate extent	27.7%	31.6%
Slight extent	17.7%	17.3%
Not at all	10.4%	8.3%
applicable % total ->	100.0%	100.0%
Does not apply	1.2%	1.7%

n->	903	1141
applicable n->	892	1122

Chi-Squared Statistic	5.3515
p-value	0.2531

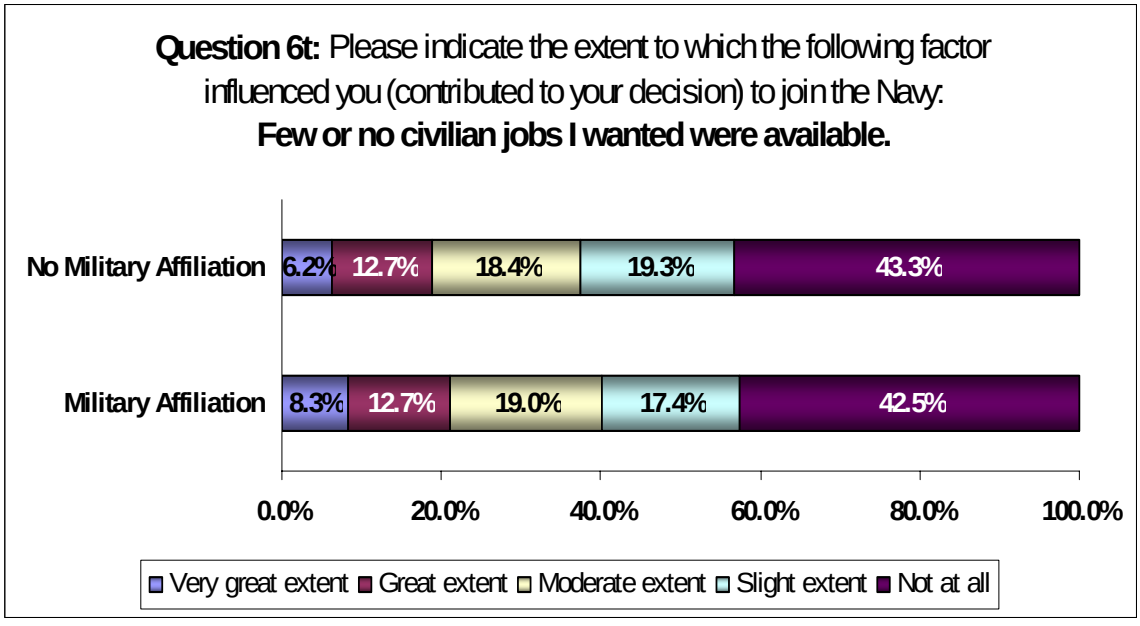


Question 6t: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **Few or no civilian jobs I wanted were available.**

	Military Affiliation	No Military Affiliation
Very great extent	67	63
Great extent	103	129
Moderate extent	154	187
Slight extent	141	196
Not at all	344	440
Does not apply	91	123
	Military Affiliation	No Military Affiliation
Very great extent	8.3%	6.2%
Great extent	12.7%	12.7%
Moderate extent	19.0%	18.4%
Slight extent	17.4%	19.3%
Not at all	42.5%	43.3%
applicable % total ->	100.0%	100.0%
Does not apply	10.1%	10.8%

n->	900	1138
applicable n->	809	1015

Chi-Squared Statistic	3.7442
p-value	0.4417

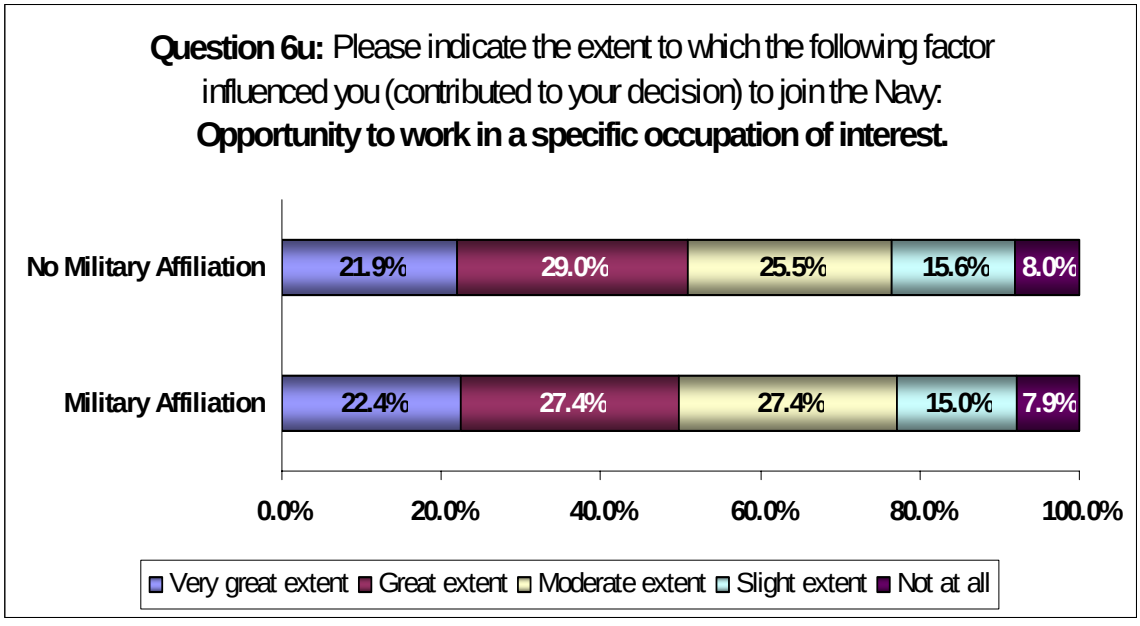


Question 6u: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **Opportunity to work in a specific occupation of interest.**

	Military Affiliation	No Military Affiliation
Very great extent	199	244
Great extent	243	322
Moderate extent	243	284
Slight extent	133	173
Not at all	70	89
Does not apply	18	24
	Military Affiliation	No Military Affiliation
Very great extent	22.4%	21.9%
Great extent	27.4%	29.0%
Moderate extent	27.4%	25.5%
Slight extent	15.0%	15.6%
Not at all	7.9%	8.0%
applicable % total ->	100.0%	100.0%
Does not apply	2.0%	2.1%

n->	906	1136
applicable n->	888	1112

Chi-Squared Statistic	1.2335
p-value	0.8725

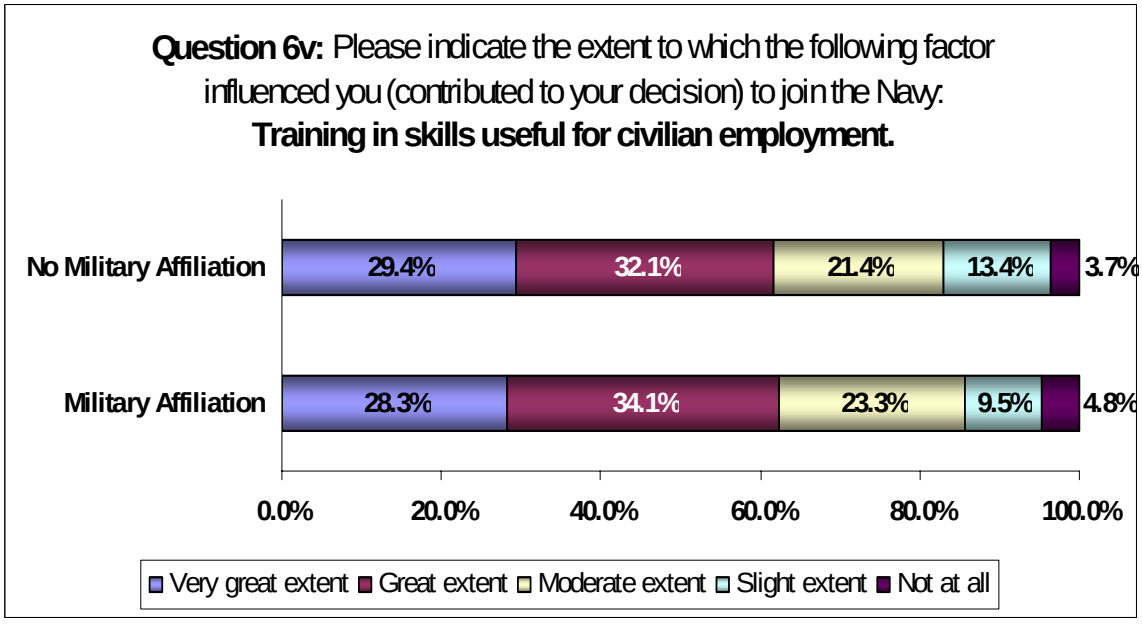


Question 6v: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **Training in skills useful for civilian employment.**

	Military Affiliation	No Military Affiliation
Very great extent	252	330
Great extent	304	360
Moderate extent	208	240
Slight extent	85	150
Not at all	43	41
Does not apply	12	12
	Military Affiliation	No Military Affiliation
Very great extent	28.3%	29.4%
Great extent	34.1%	32.1%
Moderate extent	23.3%	21.4%
Slight extent	9.5%	13.4%
Not at all	4.8%	3.7%
applicable % total ->	100.0%	100.0%
Does not apply	1.3%	1.1%

n->	904	1133
applicable n->	892	1121

Chi-Squared Statistic	9.5611
p-value	0.0485

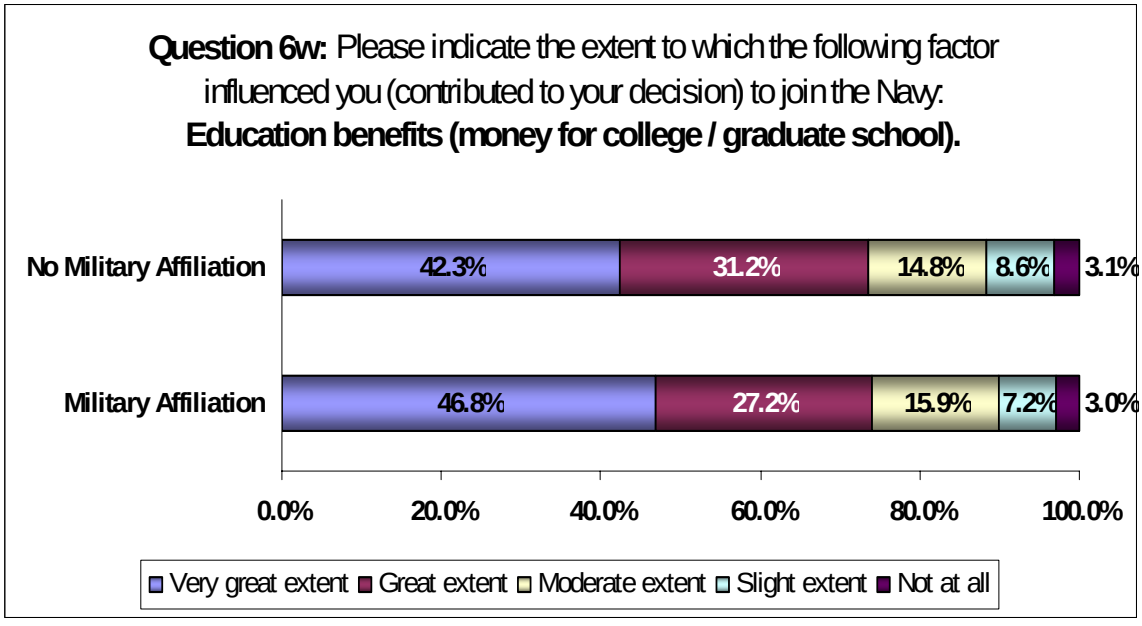


Question 6w: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **Education benefits (money for college / graduate school).**

	Military Affiliation	No Military Affiliation
Very great extent	419	475
Great extent	243	350
Moderate extent	142	166
Slight extent	64	97
Not at all	27	35
Does not apply	8	15
	Military Affiliation	No Military Affiliation
Very great extent	46.8%	42.3%
Great extent	27.2%	31.2%
Moderate extent	15.9%	14.8%
Slight extent	7.2%	8.6%
Not at all	3.0%	3.1%
applicable % total ->	100.0%	100.0%
Does not apply	0.9%	1.3%

n->	903	1138
applicable n->	895	1123

Chi-Squared Statistic	6.8079
p-value	0.1464

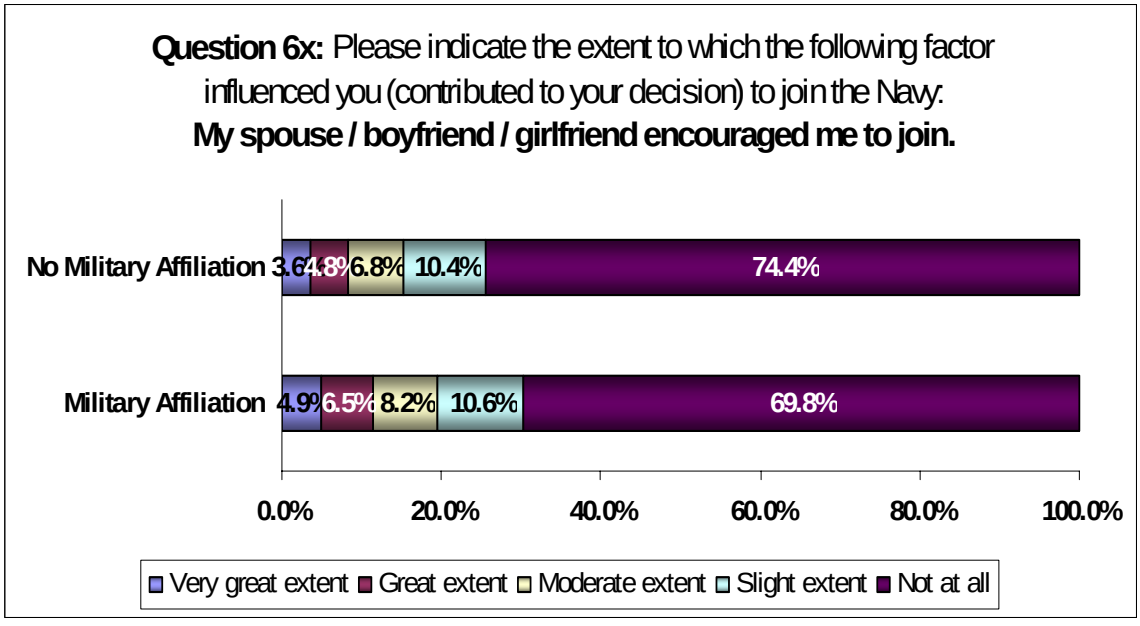


Question 6x: Please indicate the extent to which the following factor influenced you (contributed to your decision) to join the Navy: **My spouse / boyfriend / girlfriend encouraged me to join.**

	Military Affiliation	No Military Affiliation
Very great extent	32	29
Great extent	42	38
Moderate extent	53	54
Slight extent	69	83
Not at all	453	593
Does not apply	253	334
	Military Affiliation	No Military Affiliation
Very great extent	4.9%	3.6%
Great extent	6.5%	4.8%
Moderate extent	8.2%	6.8%
Slight extent	10.6%	10.4%
Not at all	69.8%	74.4%
applicable % total ->	100.0%	100.0%
Does not apply	28.0%	29.5%

n->	902	1131
applicable n->	649	797

Chi-Squared Statistic	5.2919
p-value	0.2586

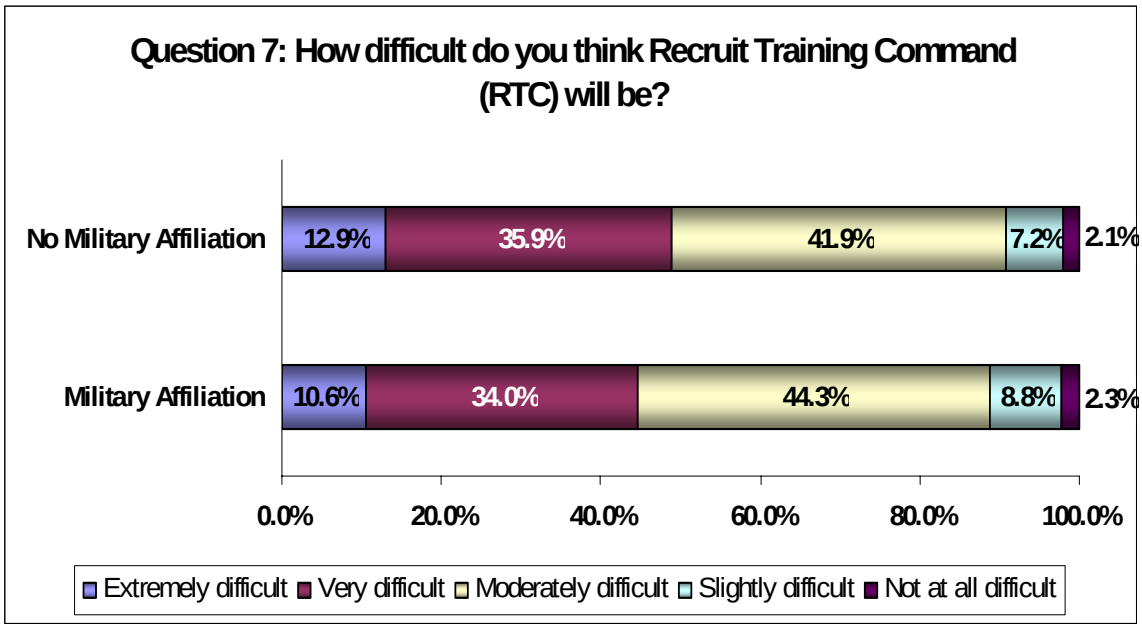


Question 7: How difficult do you think Recruit Training Command (RTC) will be?

	Military Affiliation	No Military Affiliation
Extremely difficult	96	149
Very difficult	308	413
Moderately difficult	402	482
Slightly difficult	80	83
Not at all difficult	21	24
	Military Affiliation	No Military Affiliation
Extremely difficult	10.6%	12.9%
Very difficult	34.0%	35.9%
Moderately difficult	44.3%	41.9%
Slightly difficult	8.8%	7.2%
Not at all difficult	2.3%	2.1%

n->	907	1151

Chi-Squared Statistic	5.3984
p-value	0.2488

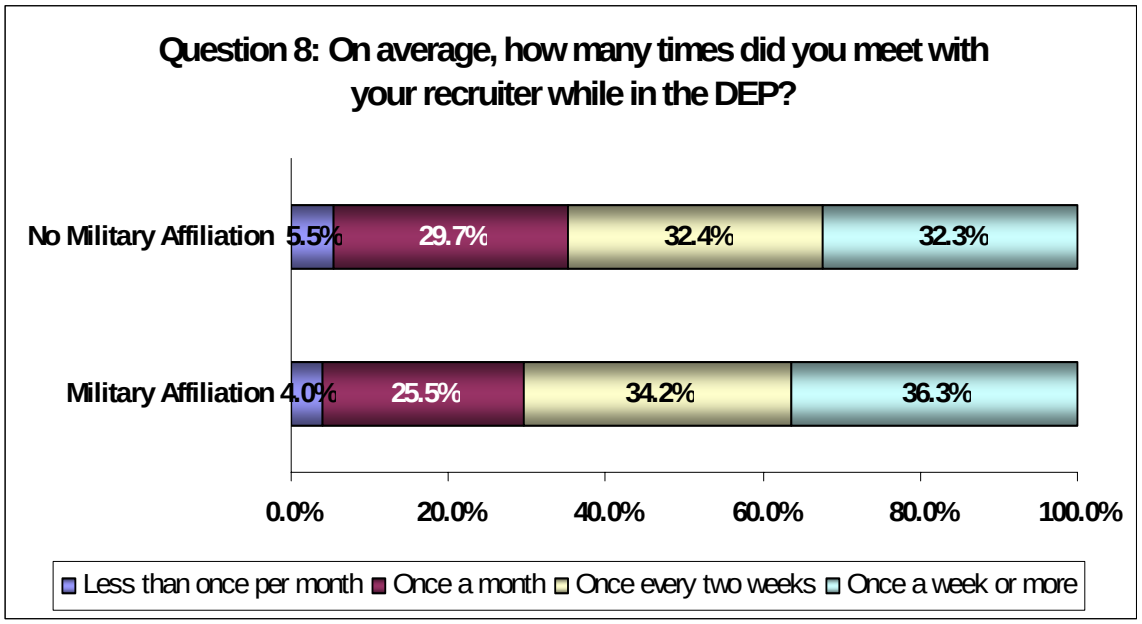


Question 8: On average, how many times did you meet with your recruiter while in the DEP?

	Military Affiliation	No Military Affiliation
vas only in DEP a few days or	28	39
Less than once per month	35	61
Once a month	224	329
Once every two weeks	300	359
Once a week or more	319	358
	Military Affiliation	No Military Affiliation
vas only in DEP a few days or	3.1%	3.4%
Less than once per month	4.0%	5.5%
Once a month	25.5%	29.7%
Once every two weeks	34.2%	32.4%
Once a week or more	36.3%	32.3%
applicable % total->	100.0%	100.0%

n->	906	1146
applciable n->	878	1107

Chi-Squared Statistic	8.1978
p-value	0.0421

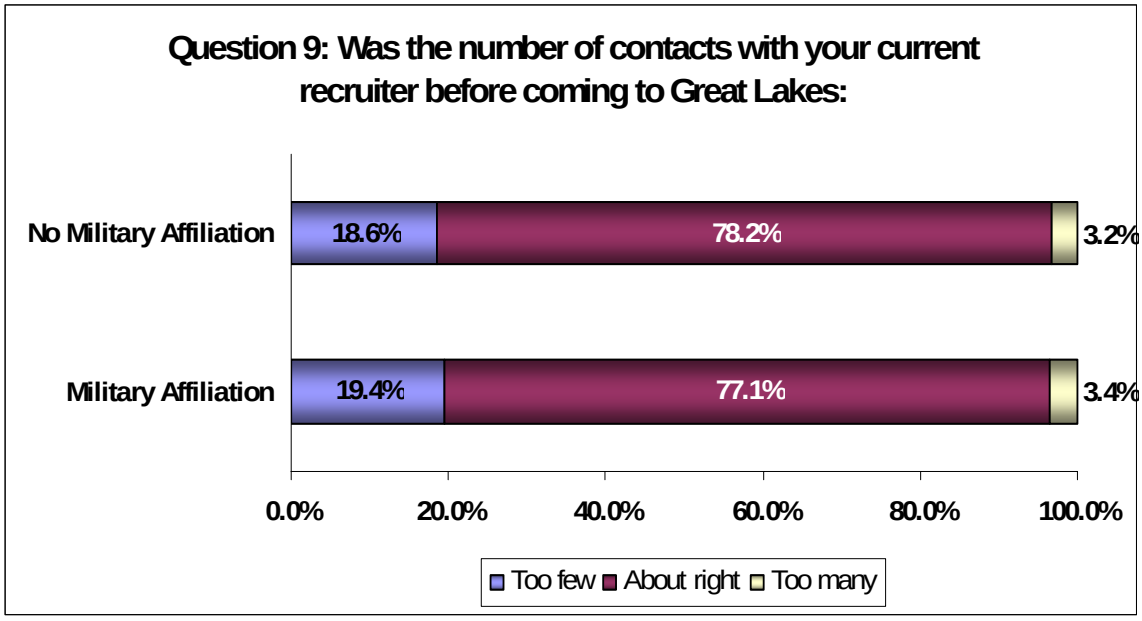


Question 9: Was the number of contacts with your current recruiter before coming to Great Lakes:

	Military Affiliation	No Military Affiliation
Too few	175	213
About right	694	898
Too many	31	37
	Military Affiliation	No Military Affiliation
Too few	19.4%	18.6%
About right	77.1%	78.2%
Too many	3.4%	3.2%

n->	900	1148

Chi-Squared Statistic	0.3659
p-value	0.8328



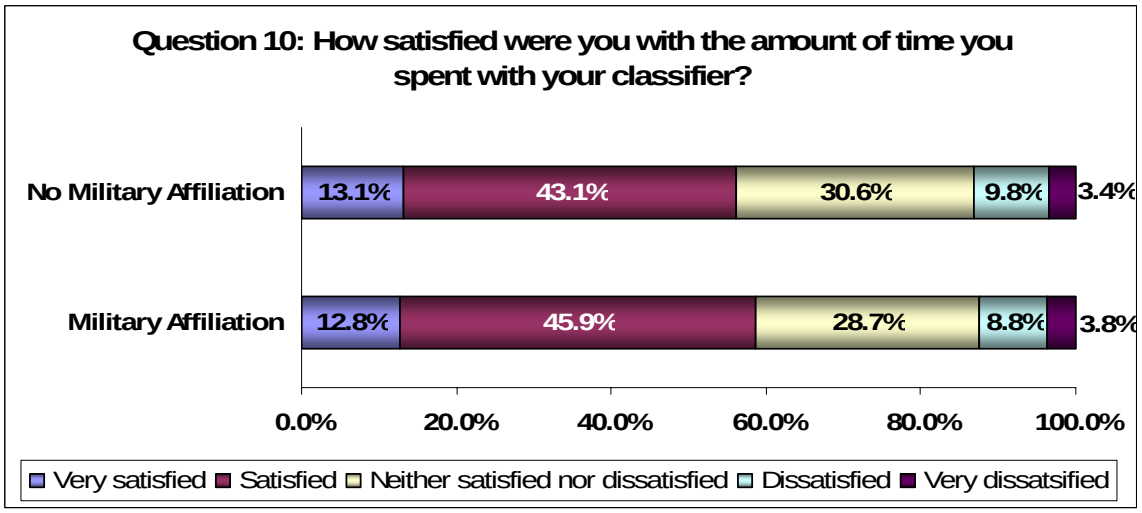
Question 10: How satisfied were you with the amount of time you spent with your classifier?

	Military Affiliation	No Military Affiliation
Not applicable	29	42
Very satisfied	112	144
Satisfied	401	473
Neither satisfied nor dissatisfied	251	336
Dissatisfied	77	108
Very dissatsified	33	37

	Military Affiliation	No Military Affiliation
Very satisfied	112	144
Satisfied	401	473
Neither satisfied nor dissatisfied	251	336
Dissatisfied	77	108
Very dissatsified	33	37
Not applicable	29	42
	Military Affiliation	No Military Affiliation
Very satisfied	12.8%	13.1%
Satisfied	45.9%	43.1%
Neither satisfied nor dissatisfied	28.7%	30.6%
Dissatisfied	8.8%	9.8%
Very dissatsified	3.8%	3.4%
applicable % total ->	100.0%	100.0%
Does not apply	3.2%	3.7%

n->	903	1140
applicable n->	874	1098

Chi-Squared Statistic	2.2476
p-value	0.6903

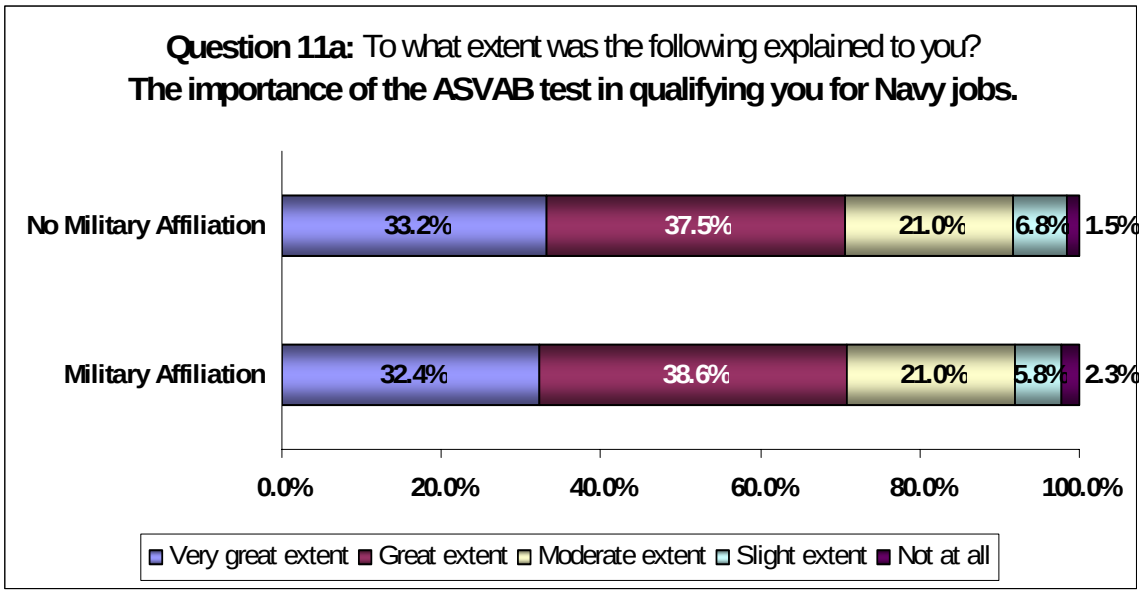


Question 11a: To what extent was the following explained to you? **The importance of the ASVAB test in qualifying you for Navy jobs.**

	Military Affiliation	No Military Affiliation
Very great extent	297	384
Great extent	354	434
Moderate extent	193	243
Slight extent	53	79
Not at all	21	17
Does not apply	5	5
	Military Affiliation	No Military Affiliation
Very great extent	32.4%	33.2%
Great extent	38.6%	37.5%
Moderate extent	21.0%	21.0%
Slight extent	5.8%	6.8%
Not at all	2.3%	1.5%
applicable % total ->	100.0%	100.0%
Does not apply	0.5%	0.4%

n->	923	1162
applicable n->	918	1157

Chi-Squared Statistic	3.0245
p-value	0.5537

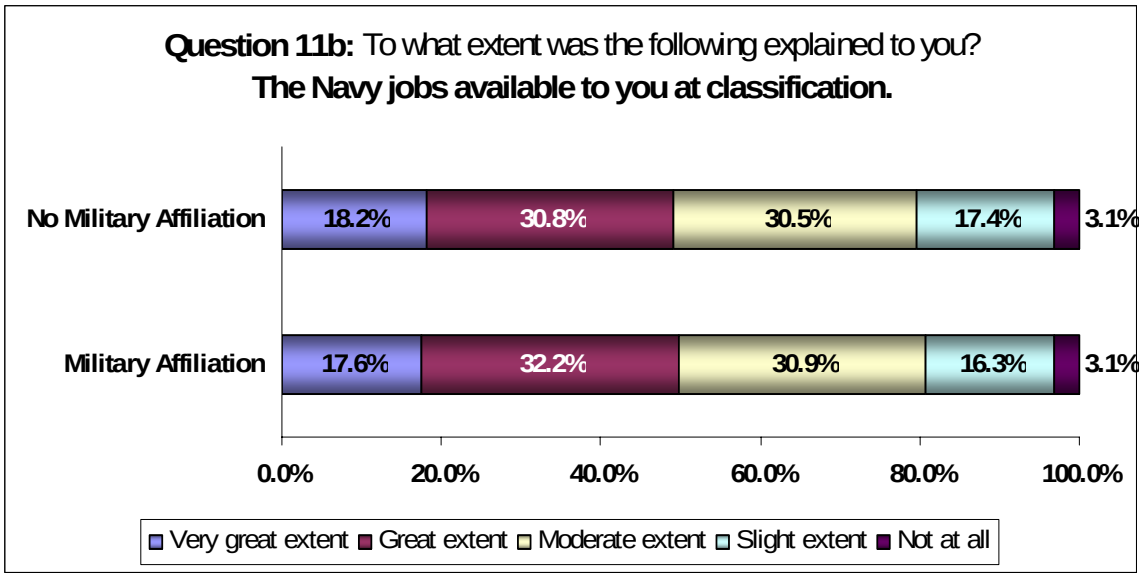


Question 11b: To what extent was the following explained to you?
The Navy jobs available to you at classification.

	Military Affiliation	No Military Affiliation
Very great extent	160	208
Great extent	293	352
Moderate extent	281	349
Slight extent	148	199
Not at all	28	35
Does not apply	7	8
	Military Affiliation	No Military Affiliation
Very great extent	17.6%	18.2%
Great extent	32.2%	30.8%
Moderate extent	30.9%	30.5%
Slight extent	16.3%	17.4%
Not at all	3.1%	3.1%
applicable % total ->	100.0%	100.0%
Does not apply	0.8%	0.7%

n->	917	1151
applicable n->	910	1143

Chi-Squared Statistic	0.8380
p-value	0.9333

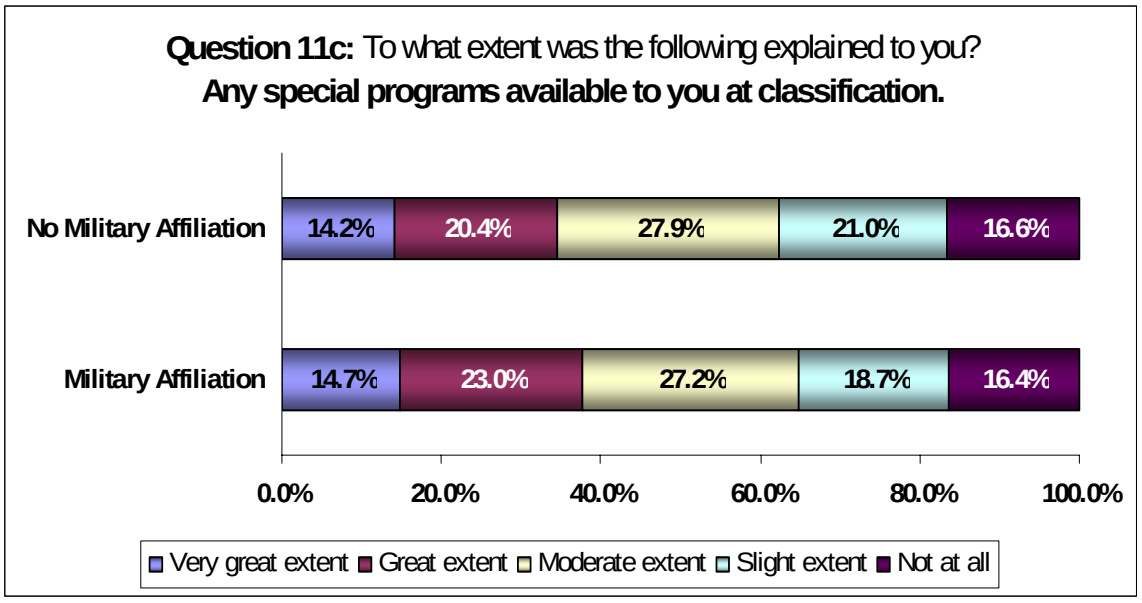


Question 11c: To what extent was the following explained to you?
Any special programs available to you at classification.

	Military Affiliation	No Military Affiliation
Very great extent	131	157
Great extent	205	226
Moderate extent	242	309
Slight extent	167	233
Not at all	146	184
Does not apply	28	39
	Military Affiliation	No Military Affiliation
Very great extent	14.7%	14.2%
Great extent	23.0%	20.4%
Moderate extent	27.2%	27.9%
Slight extent	18.7%	21.0%
Not at all	16.4%	16.6%
applicable % total ->	100.0%	100.0%
Does not apply	3.0%	3.4%

n->	919	1148
applicable n->	891	1109

Chi-Squared Statistic	3.0575
p-value	0.5482

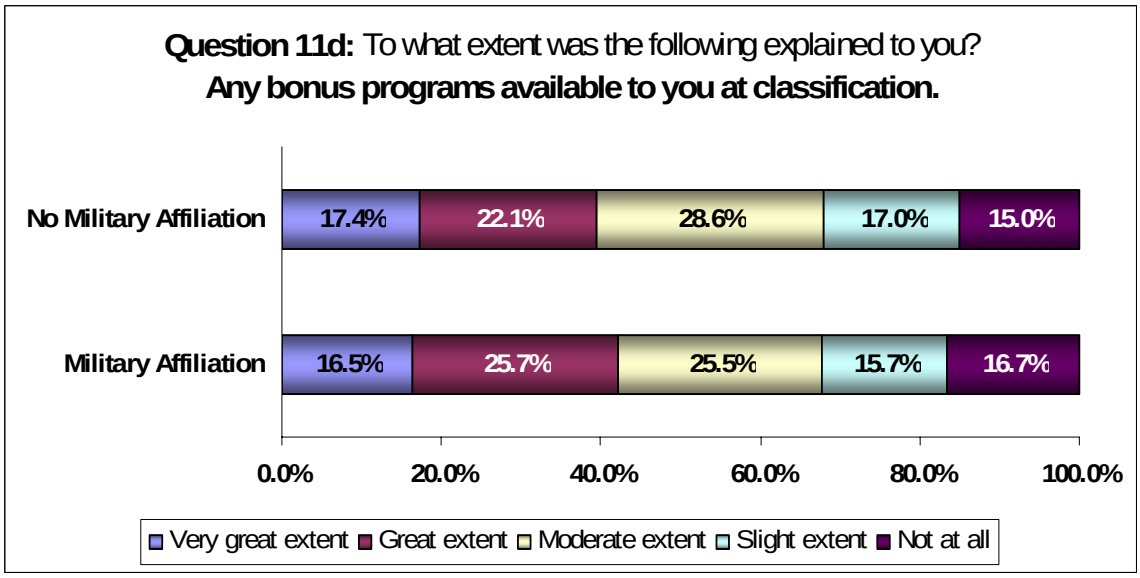


Question 11d: To what extent was the following explained to you?
Any bonus programs available to you at classification.

	Military Affiliation	No Military Affiliation
Very great extent	145	192
Great extent	226	244
Moderate extent	225	316
Slight extent	138	188
Not at all	147	166
Does not apply	32	39
	Military Affiliation	No Military Affiliation
Very great extent	16.5%	17.4%
Great extent	25.7%	22.1%
Moderate extent	25.5%	28.6%
Slight extent	15.7%	17.0%
Not at all	16.7%	15.0%
applicable % total ->	100.0%	100.0%
Does not apply	3.5%	3.4%

n->	913	1145
applicable n->	881	1106

Chi-Squared Statistic	5.9716
p-value	0.2013

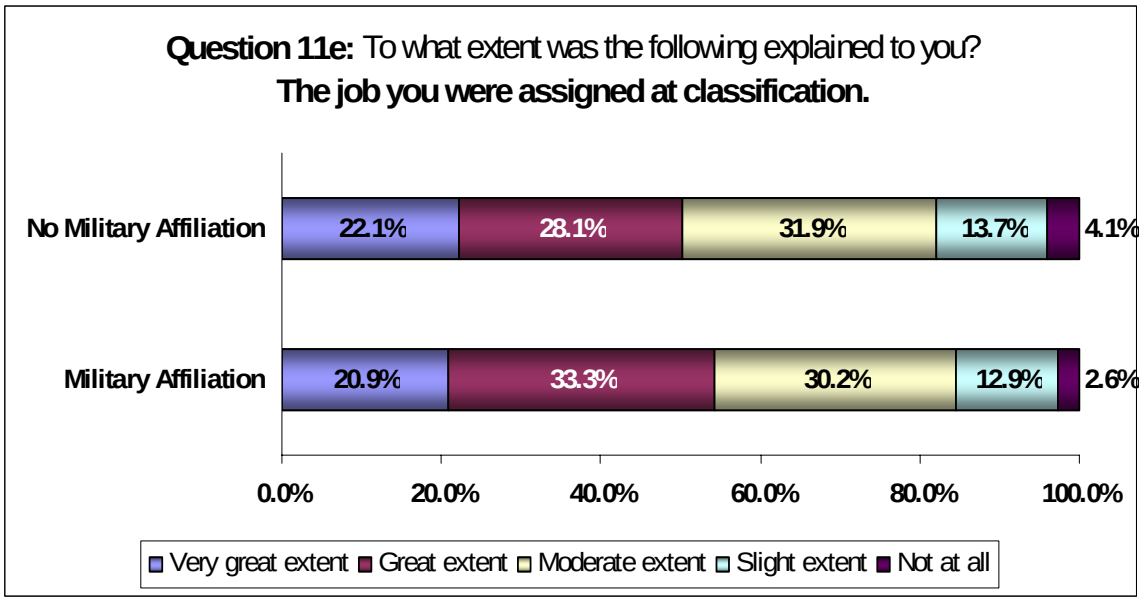


Question 11e: To what extent was the following explained to you?
The job you were assigned at classification.

	Military Affiliation	No Military Affiliation
Very great extent	191	253
Great extent	304	321
Moderate extent	276	365
Slight extent	118	157
Not at all	24	47
Does not apply	4	9
	Military Affiliation	No Military Affiliation
Very great extent	20.9%	22.1%
Great extent	33.3%	28.1%
Moderate extent	30.2%	31.9%
Slight extent	12.9%	13.7%
Not at all	2.6%	4.1%
applicable % total ->	100.0%	100.0%
Does not apply	0.4%	0.8%

n->	917	1152
applicable n->	913	1143

Chi-Squared Statistic	8.8400
p-value	0.0652

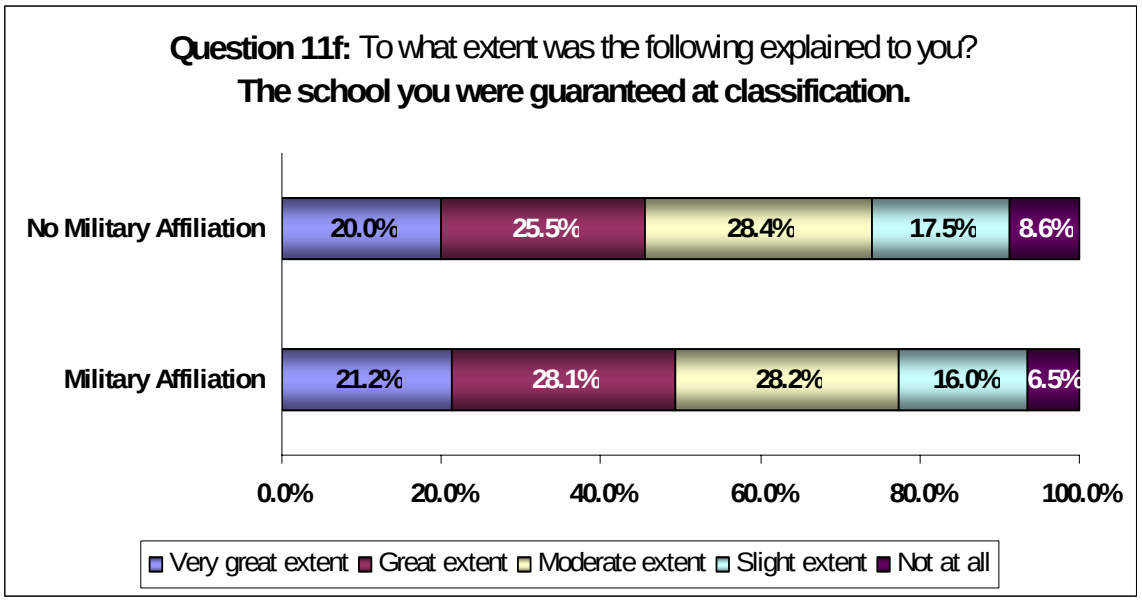


Question 11f: To what extent was the following explained to you?
The school you were guaranteed at classification.

	Military Affiliation	No Military Affiliation
Very great extent	188	224
Great extent	249	286
Moderate extent	250	319
Slight extent	142	196
Not at all	58	97
Does not apply	22	26
	Military Affiliation	No Military Affiliation
Very great extent	21.2%	20.0%
Great extent	28.1%	25.5%
Moderate extent	28.2%	28.4%
Slight extent	16.0%	17.5%
Not at all	6.5%	8.6%
applicable % total ->	100.0%	100.0%
Does not apply	2.4%	2.3%

n->	909	1148
applicable n->	887	1122

Chi-Squared Statistic	5.0928
p-value	0.2779

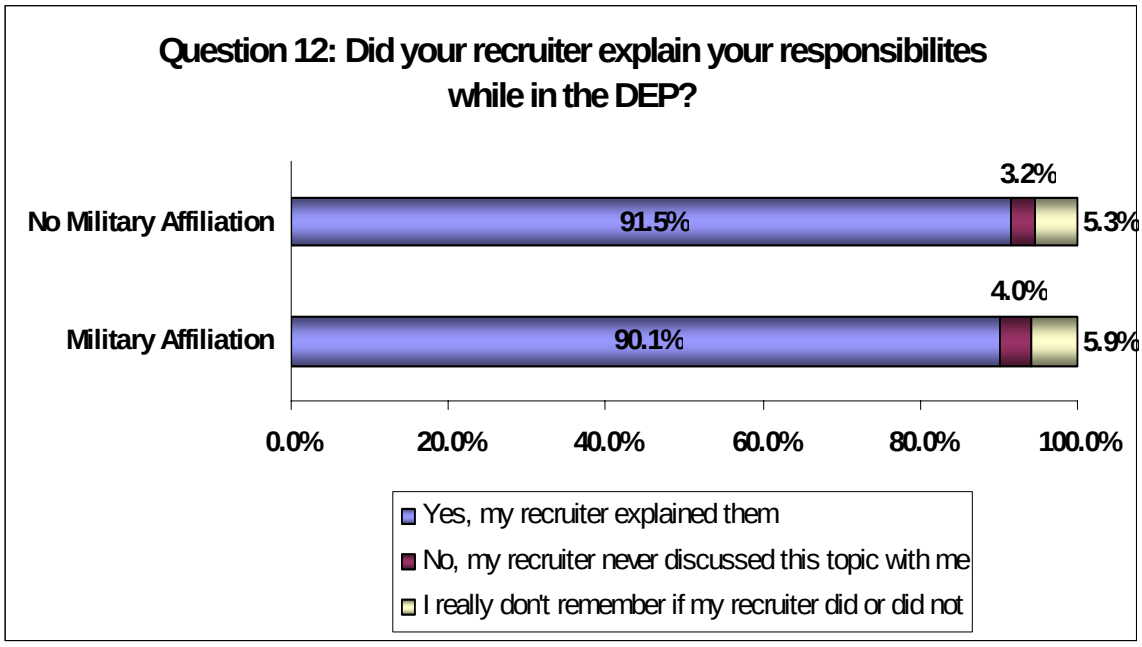


Question 12: Did your recruiter explain your responsibilites while in the DEP?

	Military Affiliation	No Military Affiliation
Yes, my recruiter explained them	835	1061
No, my recruiter never discussed this topic with me	37	37
I really don't remember if my recruiter did or did not	55	62
	Military Affiliation	No Military Affiliation
Yes, my recruiter explained them	90.1%	91.5%
No, my recruiter never discussed this topic with me	4.0%	3.2%
I really don't remember if my recruiter did or did not	5.9%	5.3%

n->	927	1160

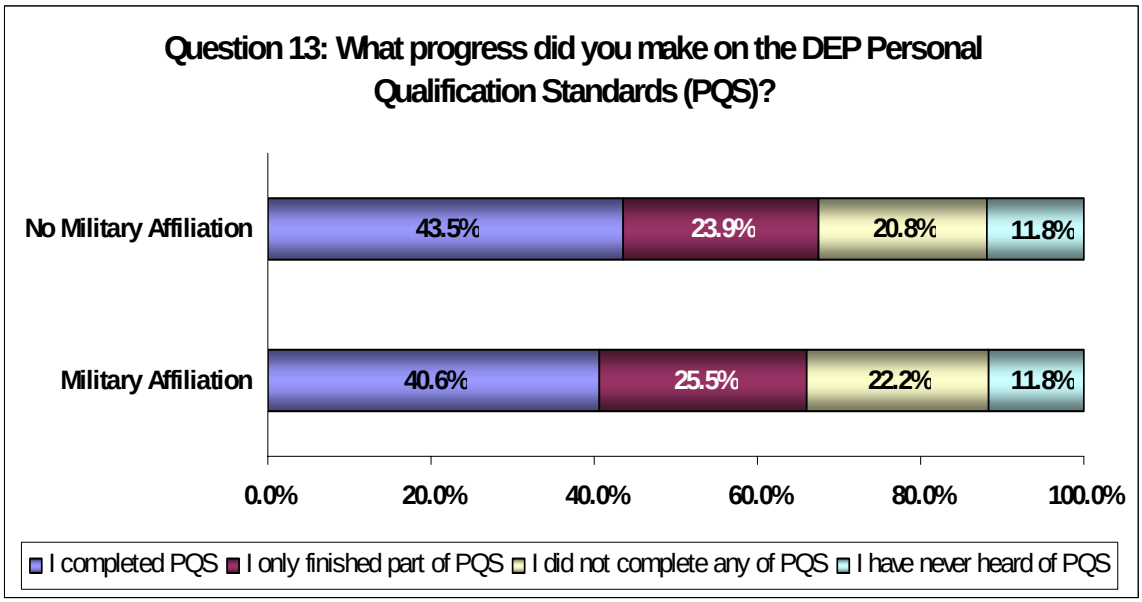
Chi-Squared Statistic	1.3617
p-value	0.5062



Question 13: What progress did you make on the DEP Personal Qualification Standards (PQS)?

	Military Affiliation	No Military Affiliation
I completed PQS	366	498
I only finished part of PQS	230	274
I did not complete any of PQS	200	238
I have never heard of PQS	106	135
	Military Affiliation	No Military Affiliation
I completed PQS	40.6%	43.5%
I only finished part of PQS	25.5%	23.9%
I did not complete any of PQS	22.2%	20.8%
I have never heard of PQS	11.8%	11.8%
n->	902	1145

Chi-Squared Statistic	1.9756
p-value	0.5775

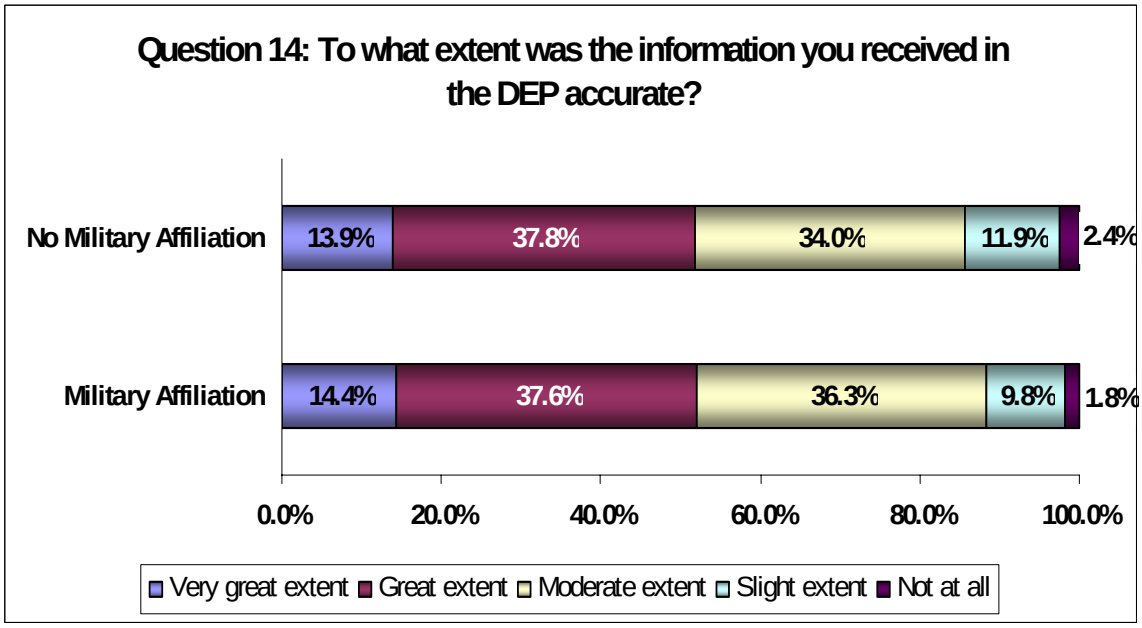


Question 14: To what extent was the information you received in the DEP accurate?

	Military Affiliation	No Military Affiliation
Very great extent	133	161
Great extent	347	437
Moderate extent	335	393
Slight extent	90	138
Not at all	17	28
	Military Affiliation	No Military Affiliation
Very great extent	14.4%	13.9%
Great extent	37.6%	37.8%
Moderate extent	36.3%	34.0%
Slight extent	9.8%	11.9%
Not at all	1.8%	2.4%

n->	922	1157

Chi-Squared Statistic	3.8999
p-value	0.4197

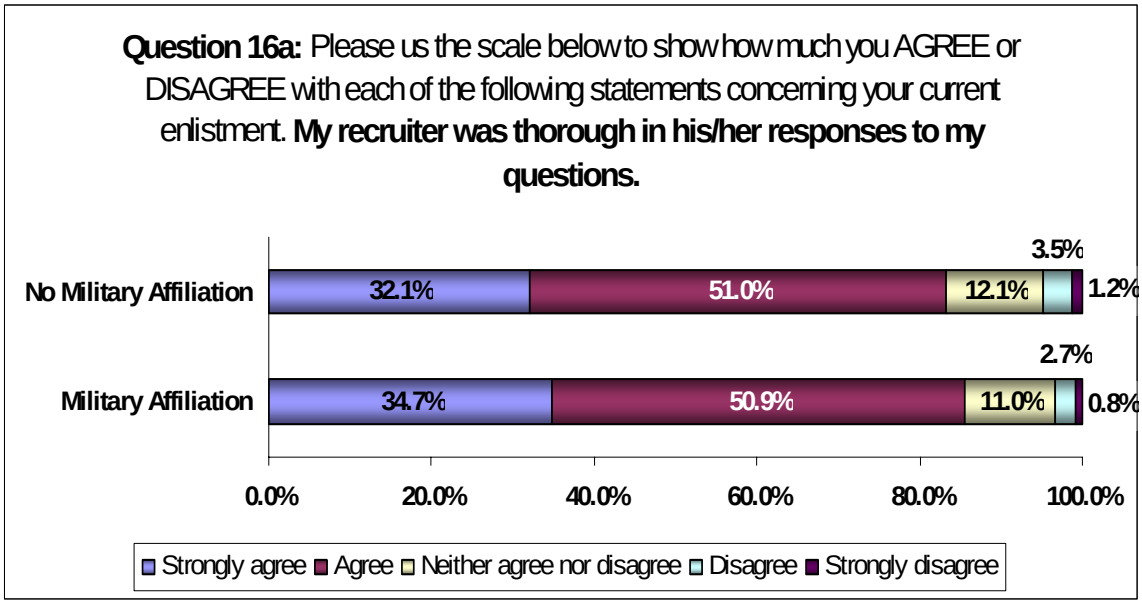


Question 16a: Please us the scale below to show how much you AGREE or DISAGREE with each of the following statements concerning your current enlistment. **My recruiter was thorough in his/her responses to my questions.**

	Military Affiliation	No Military Affiliation
Strongly agree	314	362
Agree	460	575
Neither agree nor disagree	99	136
Disagree	24	40
Strongly disagree	7	14
	Military Affiliation	No Military Affiliation
Strongly agree	34.7%	32.1%
Agree	50.9%	51.0%
Neither agree nor disagree	11.0%	12.1%
Disagree	2.7%	3.5%
Strongly disagree	0.8%	1.2%

n->	904	1127

Chi-Squared Statistic	3.9070
p-value	0.4187

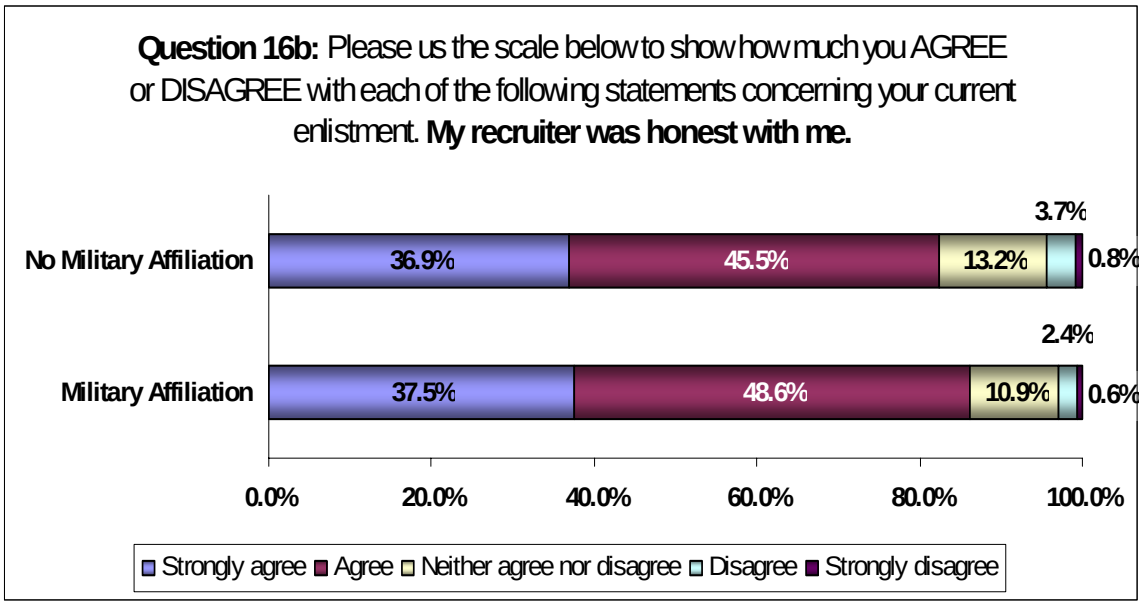


Question 16b: Please us the scale below to show how much you AGREE or DISAGREE with each of the following statements concerning your current enlistment. **My recruiter was honest with me.**

	Military Affiliation	No Military Affiliation
Strongly agree	339	414
Agree	440	510
Neither agree nor disagree	99	148
Disagree	22	41
Strongly disagree	5	9
	Military Affiliation	No Military Affiliation
Strongly agree	37.5%	36.9%
Agree	48.6%	45.5%
Neither agree nor disagree	10.9%	13.2%
Disagree	2.4%	3.7%
Strongly disagree	0.6%	0.8%

n->	905	1122

Chi-Squared Statistic	6.0602
p-value	0.1947

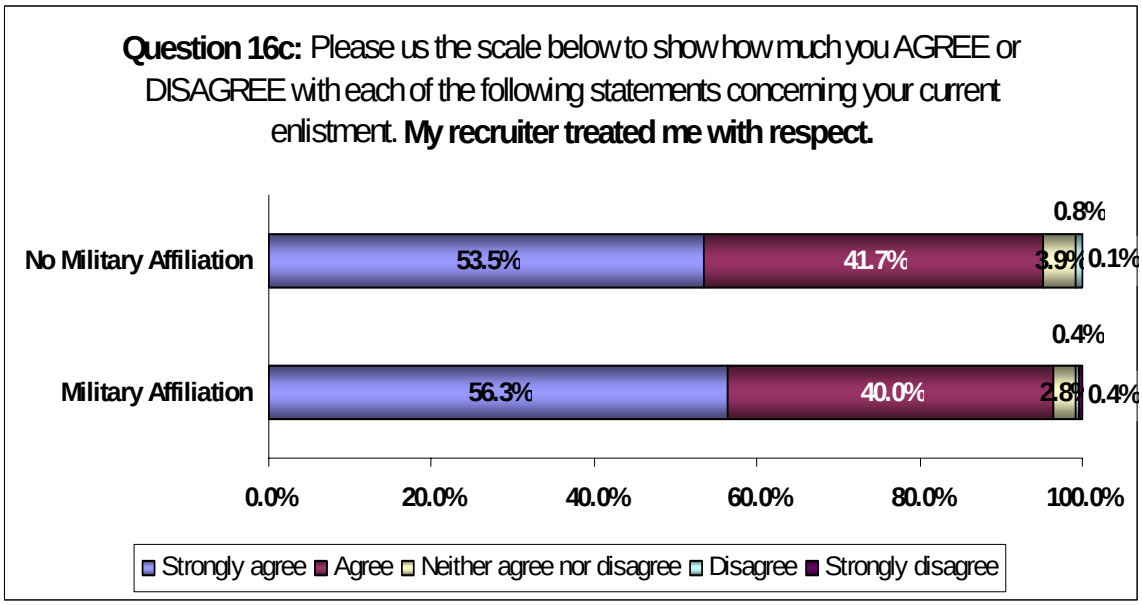


Question 16c: Please us the scale below to show how much you AGREE or DISAGREE with each of the following statements concerning your current enlistment. **My recruiter treated me with respect.**

	Military Affiliation	No Military Affiliation
Strongly agree	509	606
Agree	362	473
Neither agree nor disagree	25	44
Disagree	4	9
Strongly disagree	4	1
	Military Affiliation	No Military Affiliation
Strongly agree	56.3%	53.5%
Agree	40.0%	41.7%
Neither agree nor disagree	2.8%	3.9%
Disagree	0.4%	0.8%
Strongly disagree	0.4%	0.1%

n->	904	1133

Chi-Squared Statistic	6.4870
p-value	0.1656

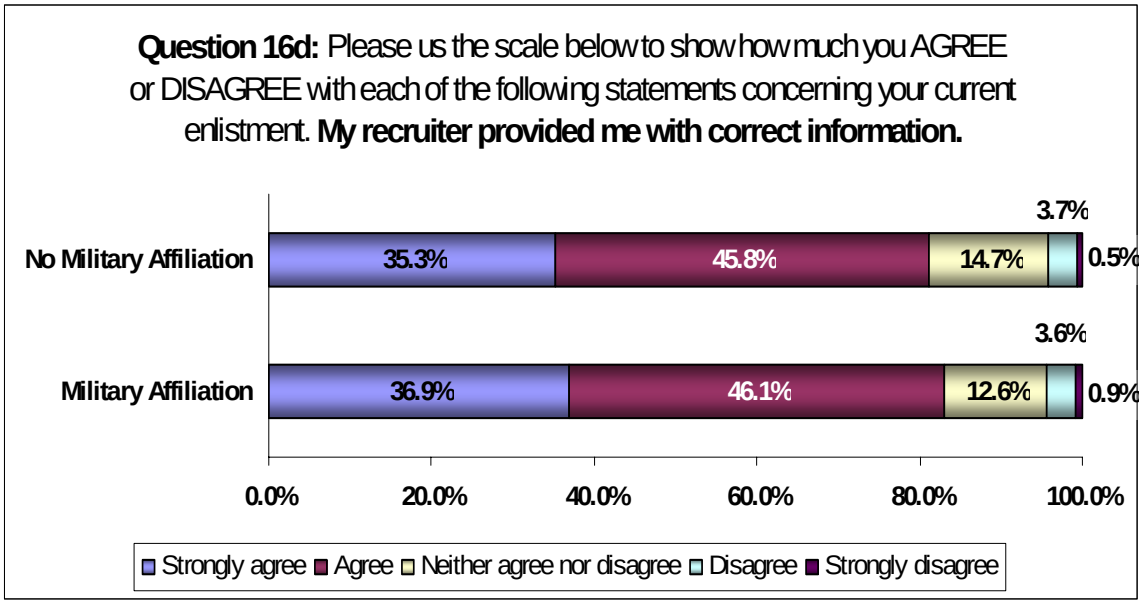


Question 16d: Please us the scale below to show how much you AGREE or DISAGREE with each of the following statements concerning your current enlistment. **My recruiter provided me with correct information.**

	Military Affiliation	No Military Affiliation
Strongly agree	332	397
Agree	415	516
Neither agree nor disagree	113	165
Disagree	32	42
Strongly disagree	8	6
	Military Affiliation	No Military Affiliation
Strongly agree	36.9%	35.3%
Agree	46.1%	45.8%
Neither agree nor disagree	12.6%	14.7%
Disagree	3.6%	3.7%
Strongly disagree	0.9%	0.5%

n->	900	1126

Chi-Squared Statistic	2.9427
p-value	0.5675

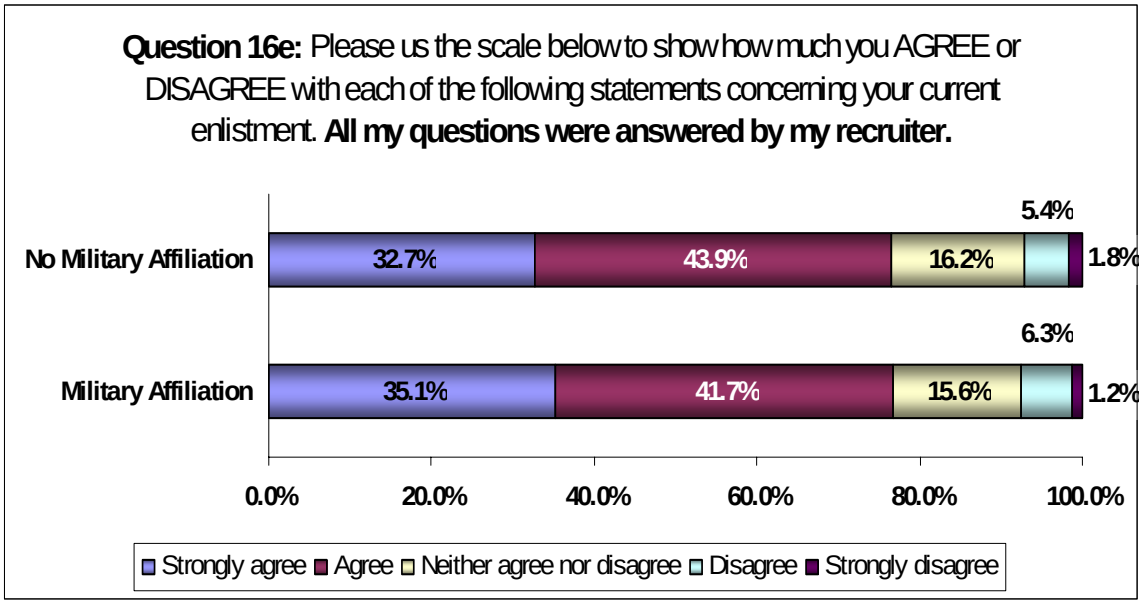


Question 16e: Please us the scale below to show how much you AGREE or DISAGREE with each of the following statements concerning your current enlistment. **All my questions were answered by my recruiter.**

	Military Affiliation	No Military Affiliation
Strongly agree	317	369
Agree	376	495
Neither agree nor disagree	141	183
Disagree	57	61
Strongly disagree	11	20
	Military Affiliation	No Military Affiliation
Strongly agree	35.1%	32.7%
Agree	41.7%	43.9%
Neither agree nor disagree	15.6%	16.2%
Disagree	6.3%	5.4%
Strongly disagree	1.2%	1.8%

n->	902	1128

Chi-Squared Statistic	3.2729
p-value	0.5132

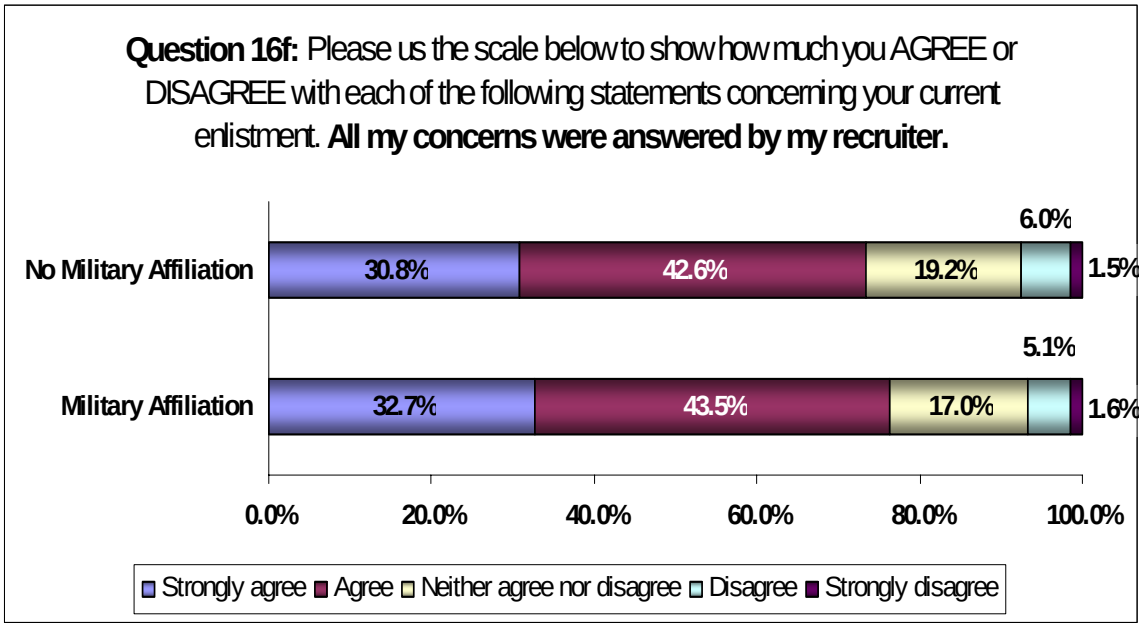


Question 16f: Please us the scale below to show how much you AGREE or DISAGREE with each of the following statements concerning your current enlistment. **All my concerns were answered by my recruiter**

	Military Affiliation	No Military Affiliation
Strongly agree	294	345
Agree	391	477
Neither agree nor disagree	153	215
Disagree	46	67
Strongly disagree	14	17
	Military Affiliation	No Military Affiliation
Strongly agree	32.7%	30.8%
Agree	43.5%	42.6%
Neither agree nor disagree	17.0%	19.2%
Disagree	5.1%	6.0%
Strongly disagree	1.6%	1.5%

n->	898	1121

Chi-Squared Statistic	2.6314
p-value	0.6213

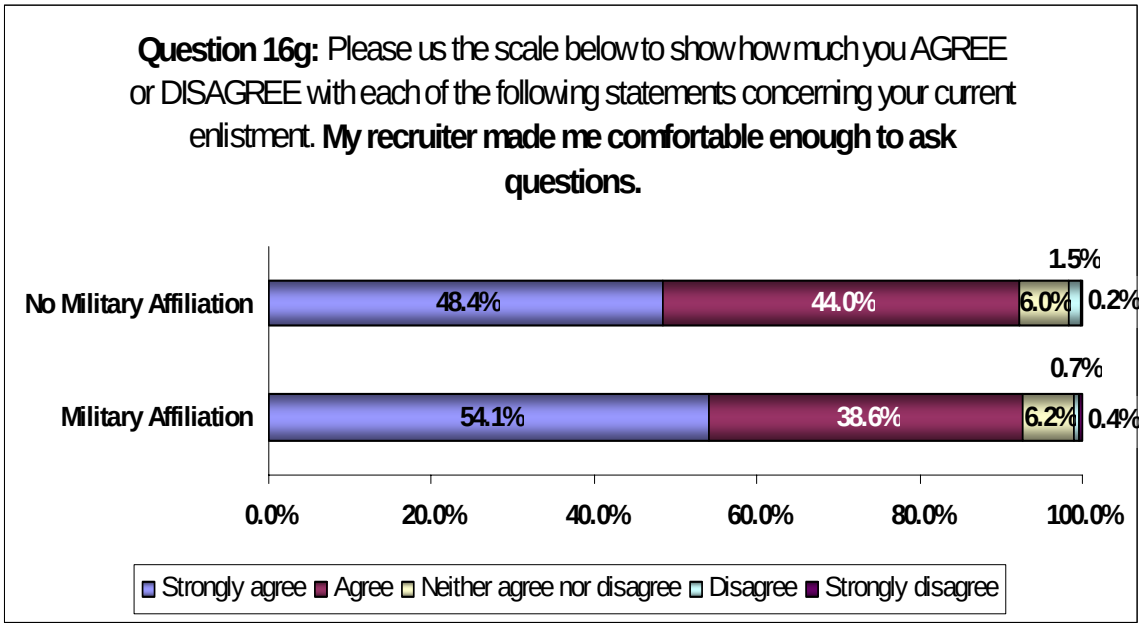


Question 16g: Please us the scale below to show how much you AGREE or DISAGREE with each of the following statements concerning your current enlistment. **My recruiter made me feel comfortable enough to ask questions**

	Military Affiliation	No Military Affiliation
Strongly agree	490	543
Agree	349	494
Neither agree nor disagree	56	67
Disagree	6	17
Strongly disagree	4	2
	Military Affiliation	No Military Affiliation
Strongly agree	54.1%	48.4%
Agree	38.6%	44.0%
Neither agree nor disagree	6.2%	6.0%
Disagree	0.7%	1.5%
Strongly disagree	0.4%	0.2%

n->	905	1123

Chi-Squared Statistic	11.2675
p-value	0.0237

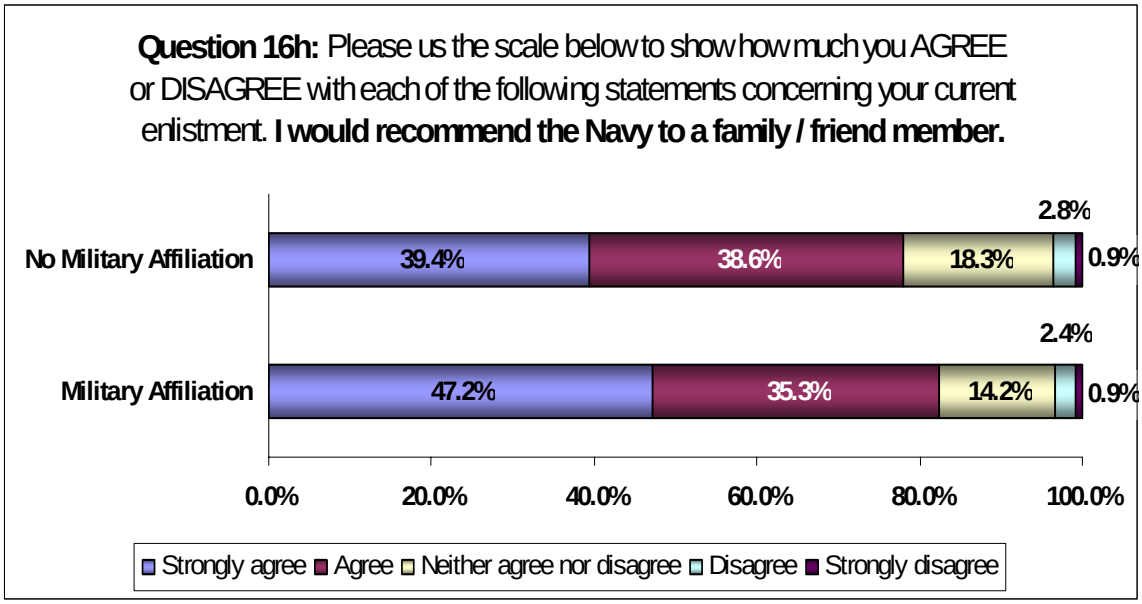


Question 16h: Please us the scale below to show how much you AGREE or DISAGREE with each of the following statements concerning your current enlistment. **I would recommend the Navy to a friend / family member.**

	Military Affiliation	No Military Affiliation
Strongly agree	425	442
Agree	318	433
Neither agree nor disagree	128	205
Disagree	22	31
Strongly disagree	8	10
	Military Affiliation	No Military Affiliation
Strongly agree	47.2%	39.4%
Agree	35.3%	38.6%
Neither agree nor disagree	14.2%	18.3%
Disagree	2.4%	2.8%
Strongly disagree	0.9%	0.9%

n->	901	1121

Chi-Squared Statistic	13.7243
p-value	0.0082

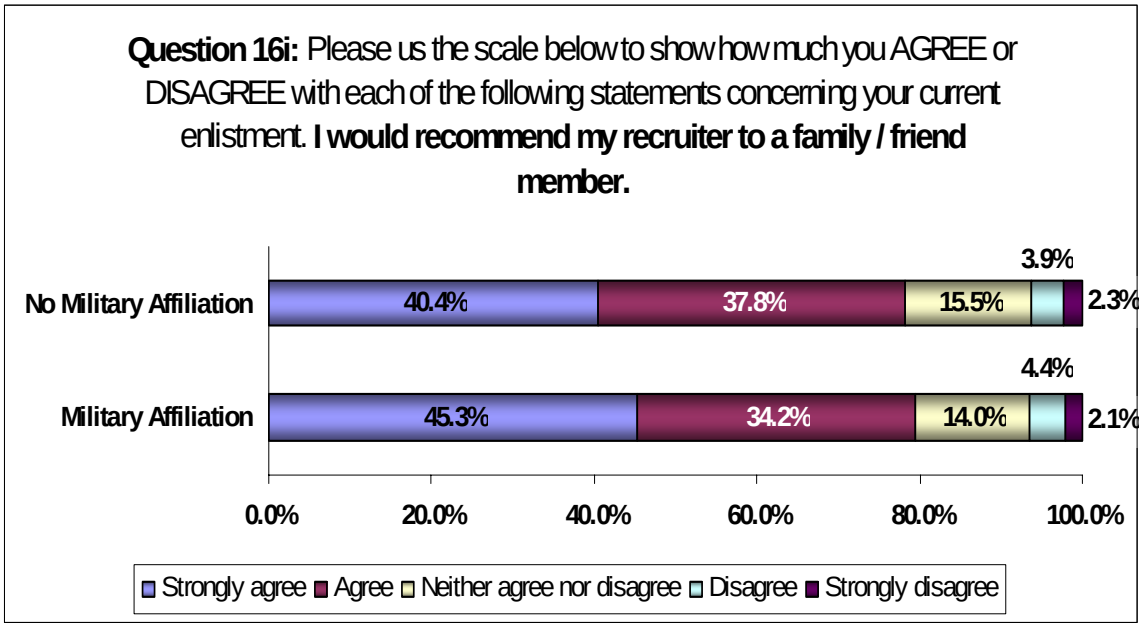


Question 16i: Please us the scale below to show how much you AGREE or DISAGREE with each of the following statements concerning your current enlistment. **I would recommend my recruiter to a friend / family member.**

	Military Affiliation	No Military Affiliation
Strongly agree	405	451
Agree	306	422
Neither agree nor disagree	125	173
Disagree	39	43
Strongly disagree	19	26
	Military Affiliation	No Military Affiliation
Strongly agree	45.3%	40.4%
Agree	34.2%	37.8%
Neither agree nor disagree	14.0%	15.5%
Disagree	4.4%	3.9%
Strongly disagree	2.1%	2.3%

n->	894	1115

Chi-Squared Statistic	5.7293
p-value	0.2203



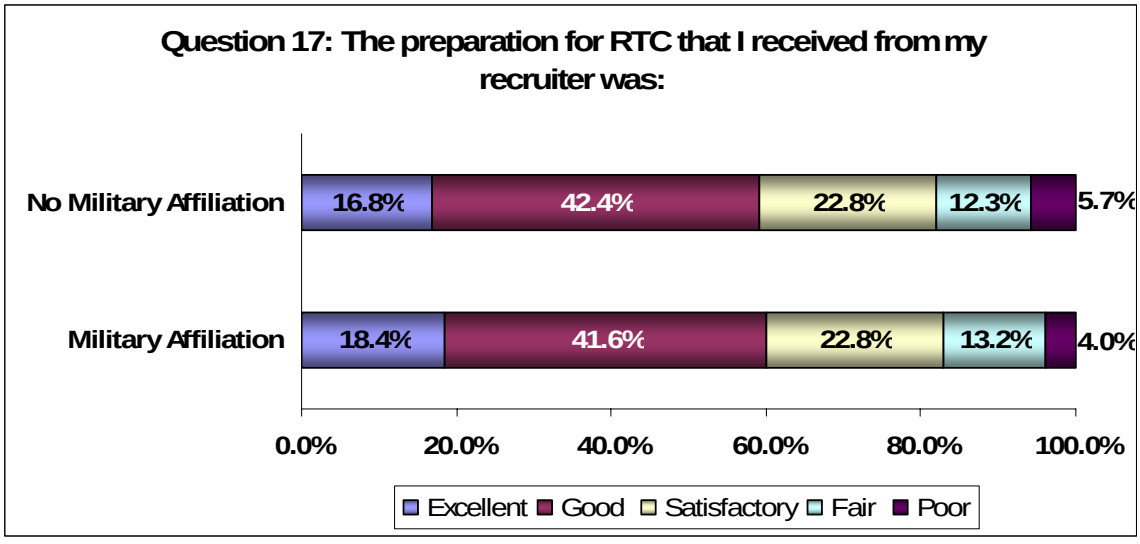
Question 17: The preparation for RTC that I received from my recruiter was:

	Military Affiliation	No Military Affiliation
Not applicable	32	33
Excellent	161	183
Good	364	462
Satisfactory	199	249
Fair	115	134
Poor	35	62

	Military Affiliation	No Military Affiliation
Excellent	161	183
Good	364	462
Satisfactory	199	249
Fair	115	134
Poor	35	62
Not applicable	32	33
	Military Affiliation	No Military Affiliation
Excellent	18.4%	16.8%
Good	41.6%	42.4%
Satisfactory	22.8%	22.8%
Fair	13.2%	12.3%
Poor	4.0%	5.7%
applicable % total ->	100.0%	100.0%
Not applicable	3.5%	2.9%

n->	906	1123
applicable n->	874	1090

Chi-Squared Statistic	3.8709
p-value	0.4238

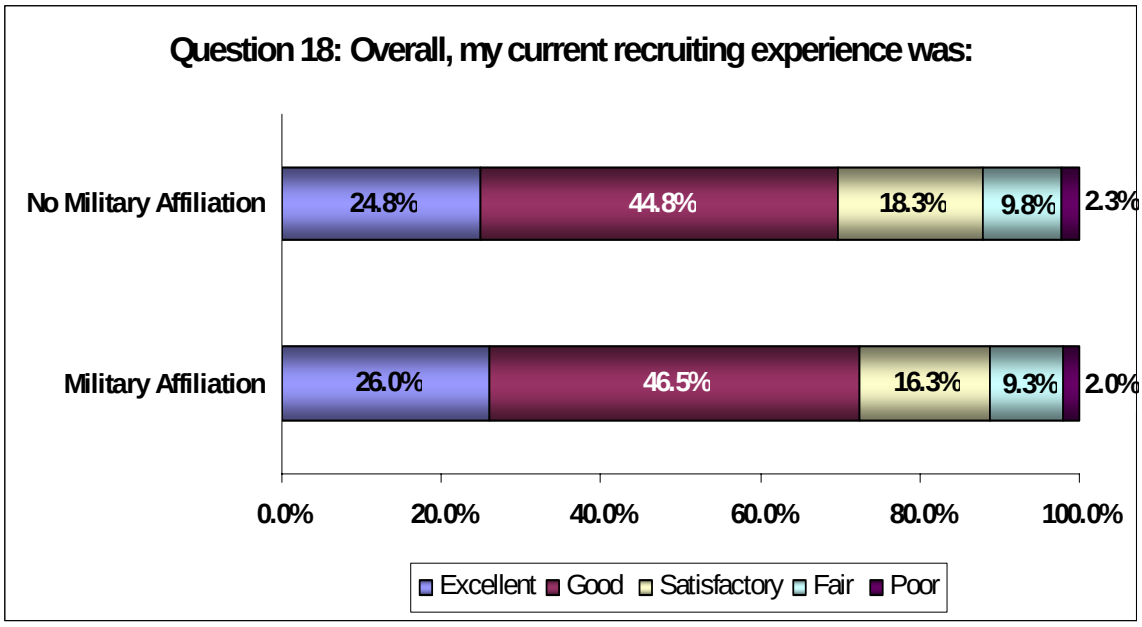


Question 18: Overall, my current recruiting experience was:

	Military Affiliation	No Military Affiliation
Excellent	235	276
Good	420	498
Satisfactory	147	203
Fair	84	109
Poor	18	25
	Military Affiliation	No Military Affiliation
Excellent	26.0%	24.8%
Good	46.5%	44.8%
Satisfactory	16.3%	18.3%
Fair	9.3%	9.8%
Poor	2.0%	2.3%

n->	904	1111

Chi-Squared Statistic	2.0112
p-value	0.7337

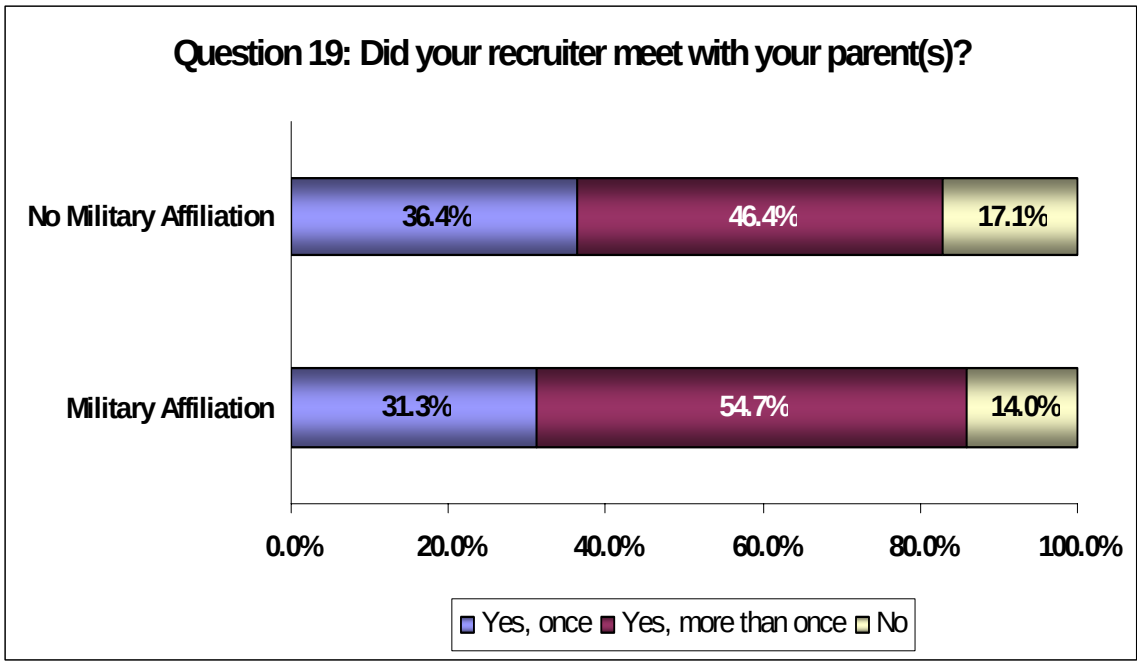


Question 19: Did your recruiter meet with your parent(s)?

	Military Affiliation	No Military Affiliation
Yes, once	234	340
Yes, more than once	409	433
No	105	160
Not applicable	152	190
	Military Affiliation	No Military Affiliation
Yes, once	31.3%	36.4%
Yes, more than once	54.7%	46.4%
No	14.0%	17.1%
applicable % total ->	100.0%	100.0%
Not applicable	16.9%	16.9%

n->	900	1123
applicable n->	748	933

Chi-Squared Statistic	11.4529
p-value	0.0033

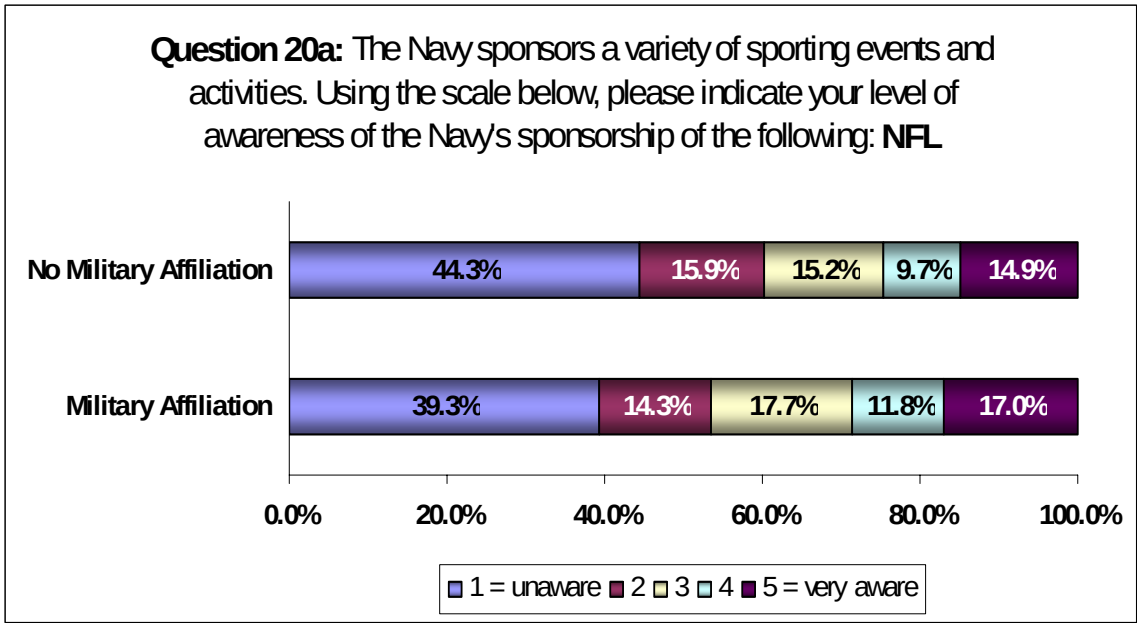


Question 20a: The Navy sponsors a variety of sporting events and activities. Using the scale below, please indicate your level of awareness of the Navy's sponsorship of the following: **NFL**

	Military Affiliation	No Military Affiliation
1 = unaware	264	370
2	96	133
3	119	127
4	79	81
5 = very aware	114	124
	Military Affiliation	No Military Affiliation
1 = unaware	39.3%	44.3%
2	14.3%	15.9%
3	17.7%	15.2%
4	11.8%	9.7%
5 = very aware	17.0%	14.9%

n->	672	835

Chi-Squared Statistic	6.8557
p-value	0.1437

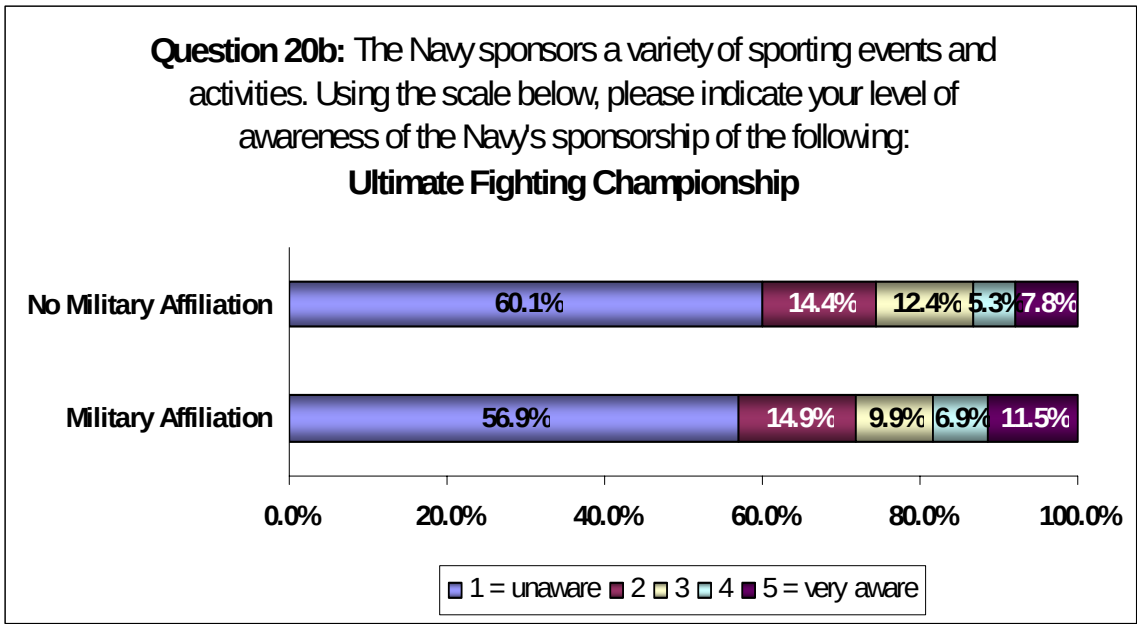


Question 20b: The Navy sponsors a variety of sporting events and activities. Using the scale below, please indicate your level of awareness of the Navy's sponsorship of the following: **Ultimate Fighting Championship**

	Military Affiliation	No Military Affiliation
1 = unaware	381	498
2	100	119
3	66	103
4	46	44
5 = very aware	77	65
	Military Affiliation	No Military Affiliation
1 = unaware	56.9%	60.1%
2	14.9%	14.4%
3	9.9%	12.4%
4	6.9%	5.3%
5 = very aware	11.5%	7.8%

n->	670	829

Chi-Squared Statistic	9.6239
p-value	0.0473

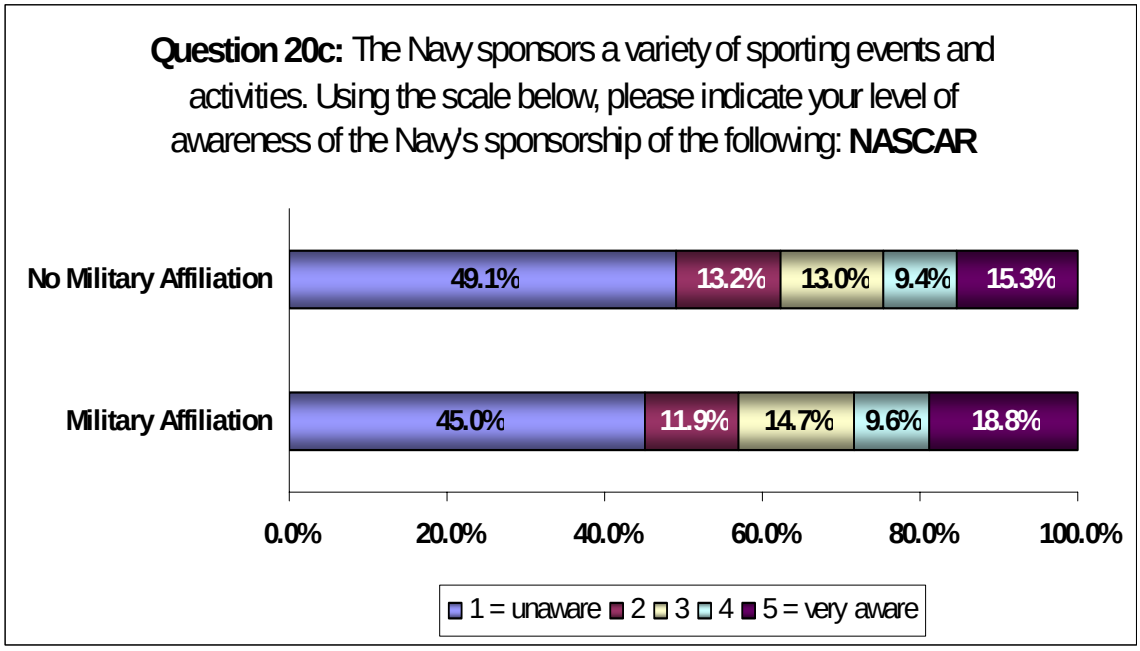


Question 20c: The Navy sponsors a variety of sporting events and activities. Using the scale below, please indicate your level of awareness of the Navy's sponsorship of the following: **NASCAR**

	Military Affiliation	No Military Affiliation
1 = unaware	300	412
2	79	111
3	98	109
4	64	79
5 = very aware	125	128
	Military Affiliation	No Military Affiliation
1 = unaware	45.0%	49.1%
2	11.9%	13.2%
3	14.7%	13.0%
4	9.6%	9.4%
5 = very aware	18.8%	15.3%

n->	666	839

Chi-Squared Statistic	5.3858
p-value	0.2500

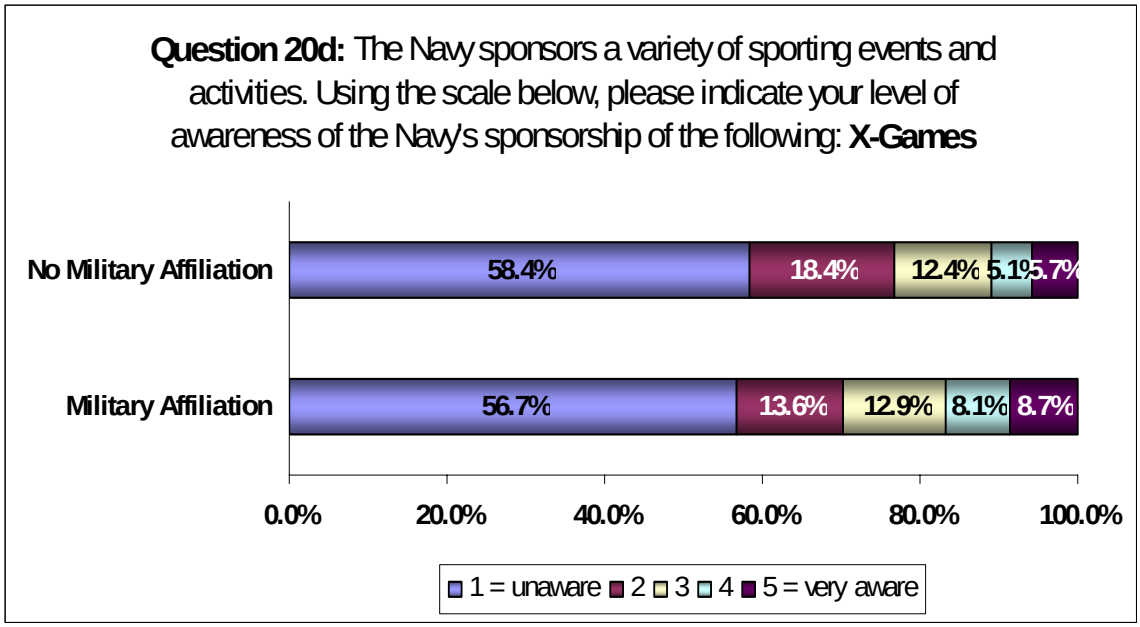


Question 20d: The Navy sponsors a variety of sporting events and activities. Using the scale below, please indicate your level of awareness of the Navy's sponsorship of the following: **X-Games**

	Military Affiliation	No Military Affiliation
1 = unaware	378	480
2	91	151
3	86	102
4	54	42
5 = very aware	58	47
	Military Affiliation	No Military Affiliation
1 = unaware	56.7%	58.4%
2	13.6%	18.4%
3	12.9%	12.4%
4	8.1%	5.1%
5 = very aware	8.7%	5.7%

n->	667	822

Chi-Squared Statistic	15.0440
p-value	0.0046

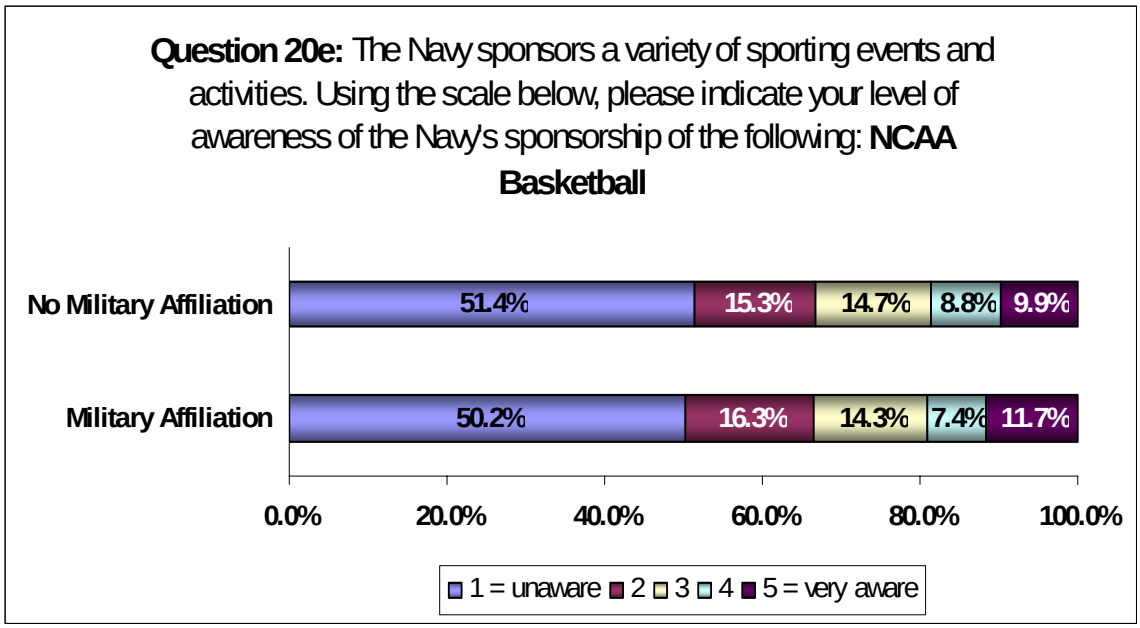


Question 20e: The Navy sponsors a variety of sporting events and activities. Using the scale below, please indicate your level of awareness of the Navy's sponsorship of the following: **NCAA Basketball**

	Military Affiliation	No Military Affiliation
1 = unaware	338	428
2	110	127
3	96	122
4	50	73
5 = very aware	79	82
	Military Affiliation	No Military Affiliation
1 = unaware	50.2%	51.4%
2	16.3%	15.3%
3	14.3%	14.7%
4	7.4%	8.8%
5 = very aware	11.7%	9.9%

n->	673	832

Chi-Squared Statistic	2.4811
p-value	0.6480

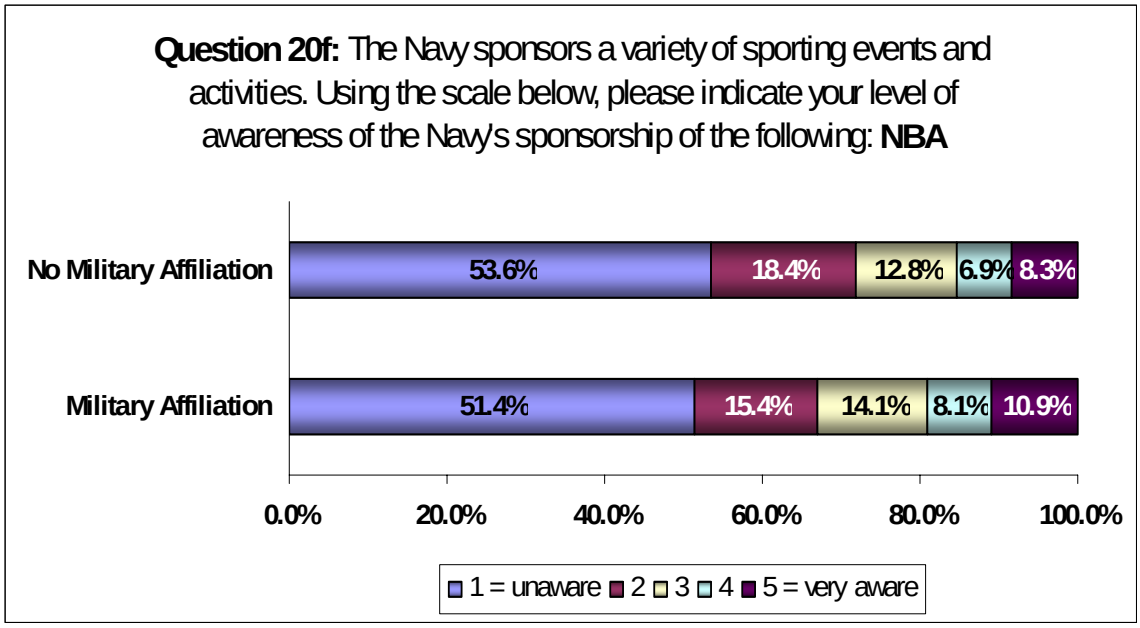


Question 20f: The Navy sponsors a variety of sporting events and activities. Using the scale below, please indicate your level of awareness of the Navy's sponsorship of the following: **NBA**

	Military Affiliation	No Military Affiliation
1 = unaware	343	443
2	103	152
3	94	106
4	54	57
5 = very aware	73	69
	Military Affiliation	No Military Affiliation
1 = unaware	51.4%	53.6%
2	15.4%	18.4%
3	14.1%	12.8%
4	8.1%	6.9%
5 = very aware	10.9%	8.3%

n->	667	827

Chi-Squared Statistic	5.9855
p-value	0.2002

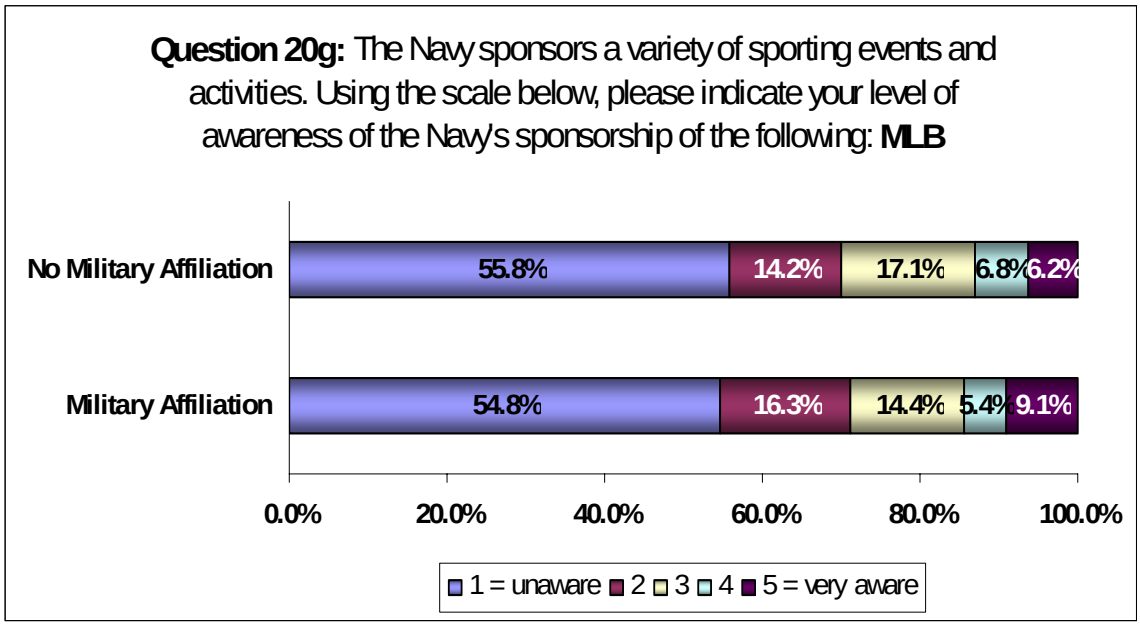


Question 20g: The Navy sponsors a variety of sporting events and activities. Using the scale below, please indicate your level of awareness of the Navy's sponsorship of the following: **MLB**

	Military Affiliation	No Military Affiliation
1 = unaware	362	461
2	108	117
3	95	141
4	36	56
5 = very aware	60	51
	Military Affiliation	No Military Affiliation
1 = unaware	54.8%	55.8%
2	16.3%	14.2%
3	14.4%	17.1%
4	5.4%	6.8%
5 = very aware	9.1%	6.2%

n->	661	826

Chi-Squared Statistic	8.1036
p-value	0.0879

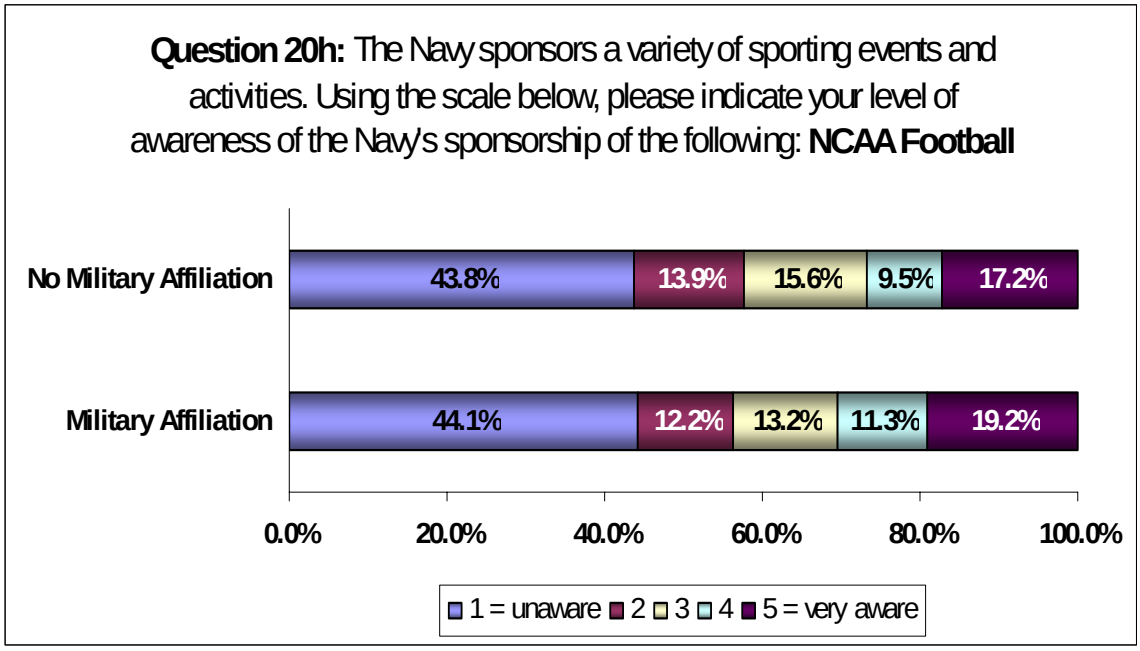


Question 20h: The Navy sponsors a variety of sporting events and activities. Using the scale below, please indicate your level of awareness of the Navy's sponsorship of the following: **NCAA Football**

	Military Affiliation	No Military Affiliation
1 = unaware	290	361
2	80	115
3	87	129
4	74	78
5 = very aware	126	142
	Military Affiliation	No Military Affiliation
1 = unaware	44.1%	43.8%
2	12.2%	13.9%
3	13.2%	15.6%
4	11.3%	9.5%
5 = very aware	19.2%	17.2%

n->	657	825

Chi-Squared Statistic	4.2629
p-value	0.3716

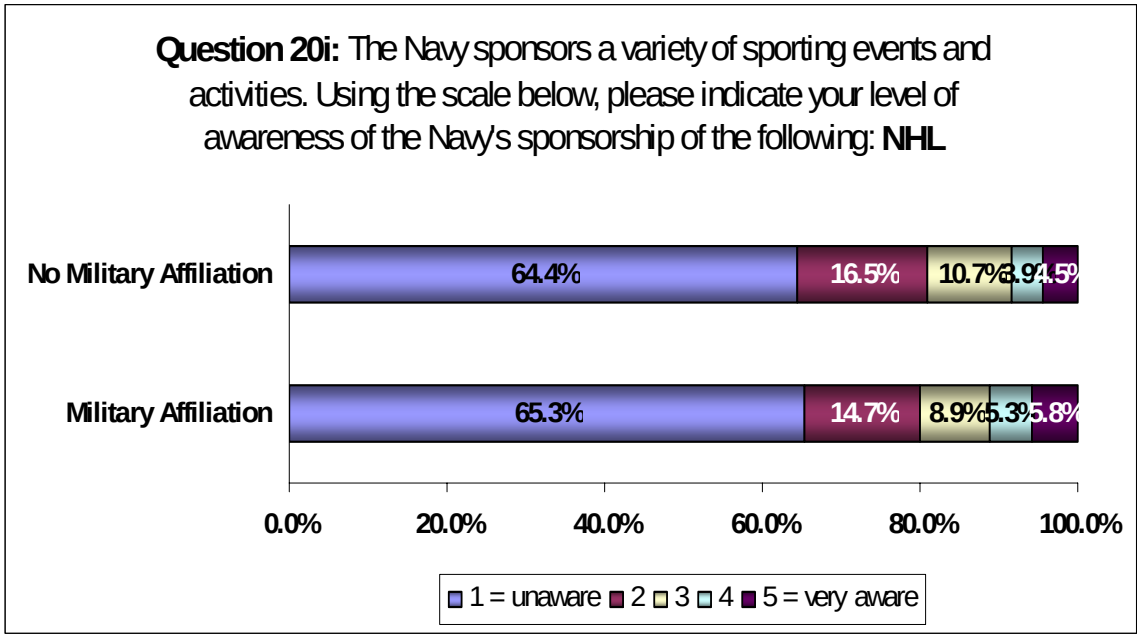


Question 20i: The Navy sponsors a variety of sporting events and activities. Using the scale below, please indicate your level of awareness of the Navy's sponsorship of the following: **NHL**

	Military Affiliation	No Military Affiliation
1 = unaware	431	529
2	97	136
3	59	88
4	35	32
5 = very aware	38	37
	Military Affiliation	No Military Affiliation
1 = unaware	65.3%	64.4%
2	14.7%	16.5%
3	8.9%	10.7%
4	5.3%	3.9%
5 = very aware	5.8%	4.5%

n->	660	822

Chi-Squared Statistic	4.7491
p-value	0.3140



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